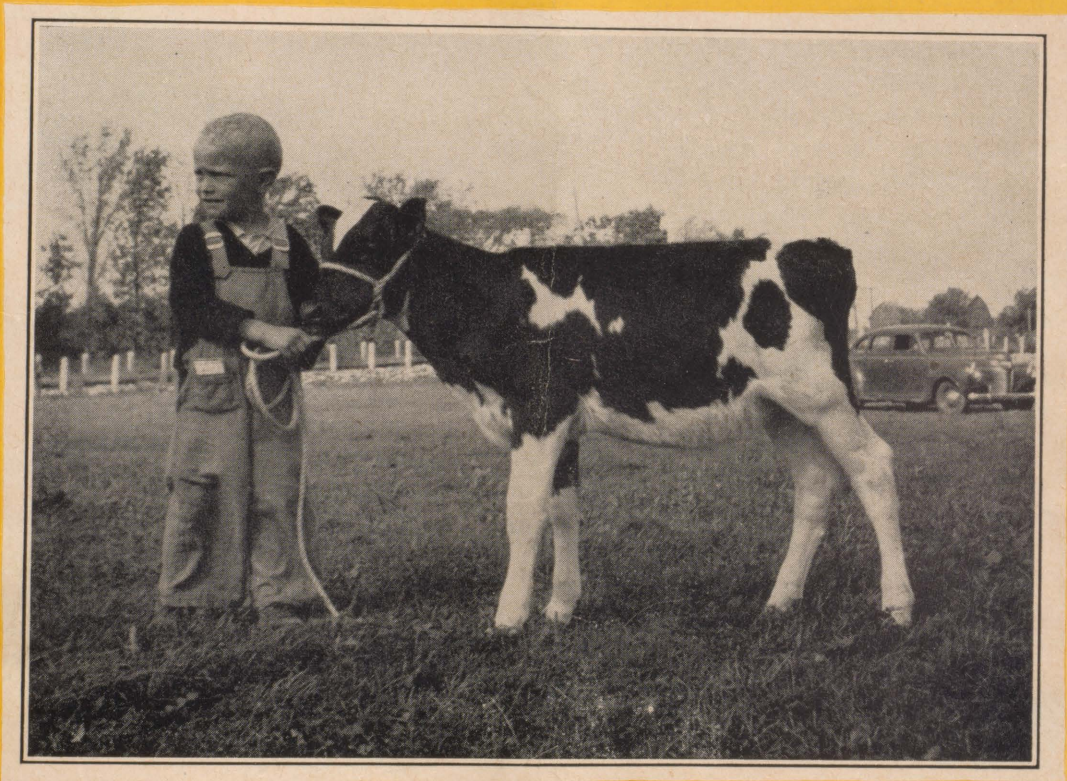


MACDONALD COLLEGE JOURNAL



VOLUME 8
No. 8



APRIL
1948

Farm · Home · School

Everywhere!



SINCE
1858

MACDONALD'S *Quality Tobacco Products*



What We Can Do About Health

Canadians might reasonably be expected to show a glow of radiant health. This is particularly true of rural Canadians. We have no problem of living tier on tier, of breathing smoke and soot and filth, or of leading a completely artificial existence that will not permit us to develop properly. And as the people who have made Canada one of the world's greatest food-exporting countries we should certainly be well fed.

Unfortunately, the things that might be expected do not tally very well with the conditions that are found here. Almost half the young people called up for military service in World War II were turned back because they could not meet the health requirements of our armed services. And during the war Canada's losses of babies were three times as great as our military casualties. We are constantly haunted by the spectre of ill health.

Again contrary to what might be expected, health conditions in rural Canada appear to be worse than those in our cities. Our high infant mortality rate is largely due to losses in rural districts, where seven out of every hundred babies die before they are a year old.

We do not need to look for the cause. Health authorities find that 4,000 more doctors, 6,000 more dentists, several thousand more nurses and 45,000 more hospital beds are required in this country. Nor do these figures suffice to show the inadequacy of health services in some regions. Most of our doctors, dentists and hospitals are clustered in towns and cities, leaving huge rural areas with almost no protection against disease. Many people cannot reach doctors before it is too late, while others hesitate to go because of the expense.

The heavy loss of babies shows just one aspect of the unnecessary wastage of human life and health in this country. Many of the babies that survive grow up under the burden of ill health. They become wan young men and women, and then ailing fathers and mothers, whose children soon fall prey to their unfavourable conditions. So the cycle is perpetuated.

A great deal of tongue service has been rendered to the slogan: "The nation's health is the nation's wealth." But more than tongue service is needed to ensure that most valuable type of riches. There is too much wastage while people argue about the best way to build up and ensure our health resources.

Many people are pinning all their hopes on a national health scheme. And since ill health recognizes no geographical boundaries a well-planned Canada-wide scheme would have much to commend it, although if such a plan were inaugurated tomorrow it would be many years before a very big proportion of the people in this country would feel its benefits. It could not produce overnight the extra doctors and other services that we need, nor could it suddenly reverse people's attitude toward health. But it could certainly assist in securing the needed services and in providing the essential facilities, so that ten or fifteen years from now all Canadians could get treatment when they needed it—regardless of their geographical or financial position.

The Canadian Federation of Agriculture for several years has been urging the dominion government to launch such a scheme. But the federation knows that even the best scheme the government can set up will not meet all our needs for some time to come. So a number of the federation's affiliates have launched programs to fill in the gap and speed improvement in their districts. County health units, hospitalization plans, municipal doctors, dental plans and mobile health units are among the devices they are using. Somewhere in Canada each of these services is now in operation, trying to overtake the heavy back-log that had built up before it went into action.

These are services that any community can have if it wants them badly enough. A health survey will show what is needed. Then the public should be informed of the results of the survey, and action should be taken to secure the needed services.

Even if a national health plan went into operation immediately, communities that knew their local situation would be able to make the most effective use of its benefits. But it may be years before there is a national health scheme. So people who are really concerned about health conditions will go ahead to do what they can to improve them in their own communities.

Our Cover Picture

With Spring upon us, this print which has been chosen for the cover position this month seems particularly appropriate. The young man is Master Cairncross whose home is at Howick, P.Q.

Any article in the *Journal* may be reprinted if the source and the author are credited. The Macdonald College Journal is owned and edited by Macdonald College, and is published in Montreal, P.Q. All correspondence concerning material appearing in the Journal should be addressed to: The Editor, Macdonald College, Que.

Chairman of the Board: W. H. Brittain, Ph.D., *Editor:* A. B. Walsh, B.Sc. (Agr.); *Associate Editor:* H. R. C. Avison, M.A., *Farm Editor:* J. S. Cram; *Circulation Manager:* L. H. Hamilton, M.S. *Business Manager:* J. H. Holton, B.Com.

For advertising rates and all correspondence concerning the advertising section write to the *Advertising Representative*, E. Gross, 6381 de Vimy Ave., Montreal; telephone ATLantic 4739.

Subscription rate \$1.00 for 3 years. Authorized as second class mail. Post Office Department, Ottawa.

Tomorrow's Soil

by W. A. DeLong

A PRIZE-WINNING animal speaks for itself and its owner in the show-ring. A fine crop is eloquent to the passer-by of the foresight, industry, and care of the one who produced it. The soil, however, which nourishes the crop and the animal, and which supports their owners seldom makes an entry into the news. How many farmers have you heard make special mention of the soil?

No, the soil seldom makes the headlines, except perhaps when there is a flood and it covers the meadows and intervals, and ruins the goods in the warehouses and factories. Even then, it is the damage caused by the soil that is out of place that gets it into the news.

A product of today's planning and practice, tomorrow's soil will be what we make it through our care or our neglect. A few common-sense measures will ensure our sons of the birthright, as well as improving life for their parents.

Can you recall the last local flood? How much mention was there of the damage caused in the fields from which the soil in the river came? Was it estimated in dollars and cents? If it was, the chances are very good that the estimate was in terms of the crops of that season only. Was there any mention of an effect on the future productivity of the fields from which that soil came? Probably not. Nevertheless, yesterday that soil was in those fields, today it is not, and tomorrow's soil will be different and poorer.

Floods are spectacular. They cause much damage that is plainly seen and easily estimated. Not so the yearly loss of top-soil from plowed and cultivated land. Yet, this annual loss of the finest and richest part of the soil may, in the long run, be much more costly to the country-side—and therefore to the towns which the latter supports—than the more striking but less frequent floods.

Fortunately, the annual losses of soil from hay-land and from well-kept pasture, are so small as to be of relatively little importance. Thus, in an experiment in nearby New York state, it was found that an acre of bare soil lost 270 tons in three years, whereas a neighbouring hay-field lost only ONE ton in the same time. Two hundred and seventy times as much soil lost from the bare land as from the hay-land! Fortunately also, from the standpoint of soil lost at least, much of the land in Eastern Canada is occupied by hay or by pasture



He's happy now; and his future prospects are bright, because his father takes good care of his land.

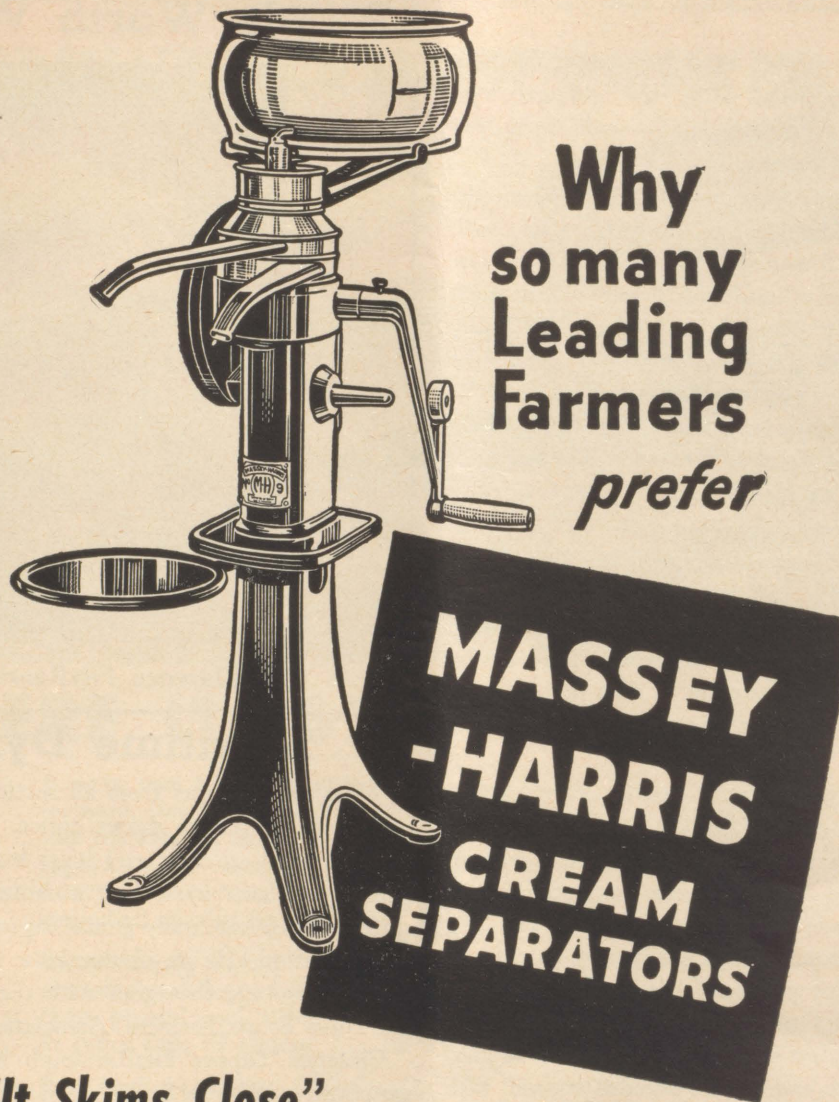
crops the greater part of the time. Much of the pasture is not well-kept, however, and soil losses are far greater from it than they should be. There is opportunity for considerable improvement there. The aim should be to keep the soil covered with the most suitable kinds of plants—grasses, or clovers, or trees.

It is possible also to reduce the losses of soil from land which is clean-cultivated and occupied by such crops as potatoes. That the latter crop may hasten soil destruction has been shown very clearly in the neighbouring state of Maine. The damage was especially great in fields where the rows were up and down the slope. This is a bad practice too often followed in Canada, as well as in Maine. In many instances it would be possible to plant and to plow **ACROSS** rather than up and down slopes, and thus to reduce soil losses very considerably.

The failure to notice, and to take steps to prevent, the loss of soil from badly-managed pasture, from plowed land which has no crop covering, or from clean-cultivated cropped land is, however, but one of the ways of neglecting the silent partner, and of making tomorrow's soil less productive and tomorrow's crops more expensive to produce.

Won't Now Pasture at All

In Nova Scotia, for example, the farmers are beginning to realize that they have been robbing Peter to pay Paul. In some N.S. districts, the fields farthest from the farm building no longer will produce even poor pasturage. Human nature being what it is, these fields have for many years received less manure than those nearer the homestead. They have been cropped mainly to grain and hay, mostly the latter. The cultivated crops, receiving most of the manure and fertilizer, have been planted nearer the buildings. This practice, continued



"It Skims Close"

Massey-Harris separators are built and tested to skim to .02 of 1% . . . leave no more than 3½ oz. of fat in 1,000 lbs. of milk.

"So Easy to Turn"

The simplified gearing and positive splash oiling reduce friction . . . and every machine is tested for easy turning before it leaves the factory.



Not only in cream separators, but in all kinds of farm machinery . . . for both indoor and outdoor use . . . Massey-Harris values and Massey-Harris performance have made warm friends of leading Canadian farmers. The secret lies in Massey-Harris engineering and craftsmanship, backed by 100 years of experience. It's worth remembering when you come to buy any kind of farm equipment. Go direct to your Massey-Harris dealer. You'll never go wrong on a Massey-Harris.



"High Quality at Low Price"

No cream separator gives you more for your dollar. Close skimming, easy turning, easy filling, easy cleaning and durable construction . . . all at low cost.

MASSEY-HARRIS COMPANY LIMITED

Established 1847

TORONTO
SASKATOON

MONTREAL
YORKTON

MONCTON
SWIFT CURRENT

WINNIPEG
CALGARY

BRANDON
EDMONTON

REGINA
VANCOUVER

for many years, has resulted in striking differences in productivity.

The same thing may have been happening in other parts of Canada, especially while the younger men were at war. In view of present labour costs there may be a tendency to continue it.

There may be several solutions to this problem, depending upon circumstances. One may be to use such far-away fields as well-managed, more or less permanent, pastures. On the other hand, if the soil of such fields naturally is very poor, or has been very badly robbed, or if the fields are hilly or stony, it may be better practice to return them to forest and to give the other fields more attention and care. The soil will be safe under properly-managed forest, since Nature's protection for it is forest or grass.

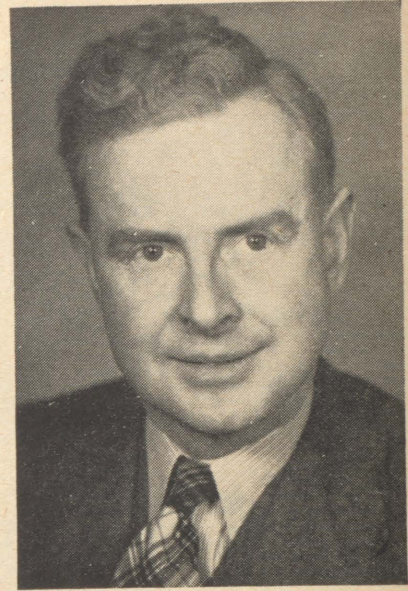
Another common way of robbing the soil is found in the lack of care of farmyard manure. The uncovered, cone-shaped manure pile still is commonly seen in our country-side. Much of the plant food will be washed out of such a pile and carried deeply into the near-by soil or away into the nearest stream. It does not get back to the field. A very important part of this lost plant food is the potash.

Experiments with field and with pasture crops, carried out by Department of Agriculture officials and by members of the Macdonald College staff, have shown very clearly the need for potash if good stands and growth of the clovers are to be obtained. The value to the farmer of high-protein legume hay and pasture in these days of high-cost protein feeds has been clearly demonstrated. Why let the potash which we have in manure go to waste? Most of it, about four-fifths in fact, is in the liquid manure and can be saved if we will take the necessary precautions.

By and large, the soil too often is taken for granted, far too little cherished. If tomorrow's soil is not as good, or better, than today's, our sons have been cheated of their inheritance. It need not be worse, it can be better, provided the best practices are followed. Further, better practices in the use and care of the land can pay their own way in improved yields in the present or the immediate future. Often they will more than pay their way.

Our knowledge of our soils and how best to care for them is, to be sure, still a long way from being complete. More is known about our soils now than ever before, however, and our knowledge is increasing. A few only of the simpler ways of handling them so as to delay or prevent their destruction have been mentioned here. These will bear repeating. They are: 1. Keep the soil covered with crops as much of the time as possible; 2. Avoid plowing and cultivating up and down slopes; 3. Make wise use of the land; 4. Save the manure, all of it.

People Worth Watching



Clarence FitzRandolph

Maritime Dynamo

Whenever farmers from all sections of Canada meet, one figure invariably draws notice. First glance goes to the full head of curly red hair; but it soon loses to a pair of brilliant eyes, and a mouth that can quickly shift from an habitually genial expression to one of grim determination. He is obviously a man of convictions, and the courage that goes with them, this secretary of the Nova Scotia Farmers' Association.

Clarence Tupper FitzRandolph has behind him five generations of Nova Scotia stock. Although he was born at Barre, Massachussets in 1900, he was still a small boy when his parents returned to Bridgetown, where his father received Premier and Banner Farmer Honours. Clarence attended school at Bridgetown, then went on to Nova Scotia Argicultural College, graduating in 1921.

From 1921 until he married Hilda Christie of Truro in 1936 Clarence farmed with his father; then he took over one of the two farms they owned. He joined a co-operative fruit company, a farmers' co-operative and a credit union; and in quick succession he became a member of the board of the Maritime Co-operative Services, a director of the Nova Scotia Fruit Growers' Association, and a member of the Nova Scotia Apple Marketing Board. In 1941, when the Maritime Food Council was set up, he became manager.

Three years later the Nova Scotia Farmers' Association decided to reorganize, and FitzRandolph became its secretary-organizer, entrusted with making some big changes. Previously, membership in the association had been through agricultural societies, so that a big proportion of N.S. farmers had no chance to take part. But

AN AMAZING NEW TYPE OF TRACTOR FOR THE POWER FARMING AGE



HERE IT IS!

A new and better tractor for easier, faster, cheaper, power farming. Built by Cockshutt, the new "30" Tractor marks a big step forward in modern tractor design and construction. All the experience of research, scientific advancement and new manufacturing techniques — gained in production for war — are embodied in this amazing new tractor.

Unanimously voted "tops" for maximum operating efficiency, economy and dependable performance, this new tractor has been farm proved and value proved on every type of farm . . . in every type of climate . . . on every type of operation.

For fuel economy Cockshutt's "30" Tractor has a variable speed governor; uses only the fuel needed for the job. The Cockshutt "30" tractor is designed to give maximum results for power farming in the 2 and 3 plow class. It is ruggedly built with a one-piece cast iron frame, forged steel axles, heavy-duty transmission and rear end.

It will pay you to investigate the features of the Cockshutt "30" Tractor including its hydraulic lift control and unique live-power take-off. See your dealer today! Cockshutt Plow Company Limited Brantford. Branches in Truro, Montreal, Smiths Falls, Winnipeg, Regina, Saskatoon, Calgary, Edmonton.

See Your **AUTHORIZED COCKSHUTT DEALER**

COCKSHUTT

PLOW COMPANY LIMITED

TRURO, MONTREAL,
SMITHS FALLS

BRANTFORD

WINNIPEG, REGINA, SASKATOON,
CALGARY, EDMONTON

PARTNERS OF THE CANADIAN FARMER FOR 109 YEARS

on the new basis, each county was divided into district associations, the district being the area around a natural business and social centre.

Now each farmer and his family have direct membership in the district association, although the district is encouraged to set up smaller community groups, such as farm forums and straight community clubs, members of district associations automatically become members of the county and provincial associations, but at these levels voting is limited to delegates from the district to the county, and from the county to the provincial group.

Reorganization was slow in some sections, but developed rapidly in others. The chief benefits were local developments such as farmers' co-operatives of many kinds, and recreational programs. At the same time the provincial association began to receive more recognition from the Department of Agriculture, resulting in more progressive agricultural policies.

Within the Maritime Federation of Agriculture, the N.S. Farmers' Association has often initiated policies promoting agriculture in the Maritimes. Outstanding have been the pressure for freight assistance on feed grains, a livestock-feed grain policy, marshland reclamation, sounder fertilizer policies and dominion marketing legislation.

Nor does the man responsible for most of these activities limit himself to working through the one organization. Clarence FitzRandolph represents the N.S. Farmers' Association in many other organizations, and in several he has attained high office. He is secretary-treasurer of the Maritime Food Council, director and executive member of the Dairy Farmers of Canada, president of the Maritime Federation of Agriculture, and director and executive member of the Canadian Federation of Agriculture. And on top of all this, he still operates his small fruit farm, at Carleton Corner, near Bridgetown.

Making Heredity Work for Us

Dr. Jay L. Lush, Iowa State College

EACH animal is a unit in its heredity, just as an automobile is a unit and behaves as such in its performance. But the individual's heredity consists of many hundreds of smaller units, — the "genes", — which separate and recombine in transmission from parents to offspring. Like the hundreds of parts in an automobile, some of the genes do pretty much the same thing in all combinations and under all circumstances. These we can call "good" or "bad," according to our desires. Other genes interact with each other in such intricate ways that their effects will be good in some combinations and under some environments but bad under others.

A parent transmits to each offspring one or other, but not both, of the genes from each pair that parent has. Because of this sampling nature of inheritance an offspring can have heredity better than either of its parents or heredity poorer than either of them. Even if we knew the parents' heredity perfectly, we could not predict exactly what each individual offspring will be, but only what the average of a large number of them will tend to be.

The animal breeder can do only two things to improve the heredity of the next generation: select those which are to be parents and decide how those selected ones are to be paired with each other. He cannot make genes to order, nor control the processes which determine what genes shall go into each gamete, nor sort among the gametes after they are formed. But the bases of selection are so many and the possible mating systems are so varied that their combinations make an al-

most infinite number of different breeding plans possible.

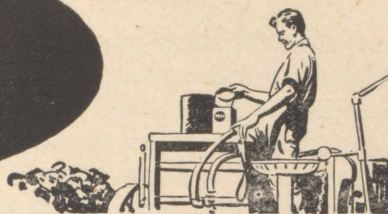
Selection is deciding which animals shall have many offspring and which shall have few or none. These decisions may be based on the animal's own characteristics (mass selection), on the characteristics of its ancestors (pedigree selection), or on the characteristics of its collateral relatives (family selection), or on the characteristics of its offspring already produced (the progeny test), or on some combination or compromise of these.

The consequences of selection are proportional to its intensity times its accuracy. Hence changes which selection produces are slight if either of these are low. Intensity may be low because replacement rates for losses from disease, accident or carelessness are high. Accuracy may be low because of carelessness or errors in observing and recording the merit of each animal, or because environmental differences or gene interactions, make an animal's individual merit different from its breeding merit.

When heritability is low, proper attention to the merit of close relatives can improve the accuracy of selections distinctly, because the environmental effects and gene interactions will not all be the same in the relatives as in the animal being considered. But it is easily possible to go too far in this direction, since the sampling nature of inheritance permits an occasional individual to be widely different from any of its close relatives.

HERBATE

(2,4-D)



**Now available in
the three formulations
recommended by
Agricultural Authorities
ESTER • AMINE • SODIUM**

"HERBATE" L-37 (Isopropyl Ester).

A liquid which mixes readily with either water or oil. Especially adapted for low-volume spraying, and may be used with all types of equipment, including aircraft. Penetrates quickly into leaf tissue, giving faster kill. Rainfall, even shortly after application, does not impair its effectiveness. Each Imperial gallon contains 4 lbs. of 2,4-D acid. Each Imperial quart added to 100 gallons of water (or oil) gives a concentration of 0.1% 2,4-D acid equivalent.

"HERBATE" L-40 (Amine Alkanol-amine Salt). A water-soluble liquid.

Like "HERBATE" L-37, it is adapted to low-volume spraying, and is not affected by rainfall after application. Each Imperial gallon contains 5 lbs. of 2,4-D acid. 1½ pints added to 100 gallons of water gives a concentration of 0.1% 2,4-D acid equivalent.

"HERBATE" P-70 (Sodium Salt — Monohydrate). A water-soluble powder, less likely to injure certain crops such as corn and flax. 1 lb. provides 11.2 oz. of 2,4-D acid. 1.43 lbs. in 100 gal. of water gives a concentration of 0.1% acid equivalent.



**CANADIAN INDUSTRIES LIMITED
AGRICULTURAL CHEMICALS DIVISION**

Halifax • Montreal • Toronto • Chatham, Ont. • Winnipeg • Calgary • New Westminster

Chemical Killers

by F. O. Morrison

THE advent of DDT certainly opened the door of Fibber McGee's hall closet full of chemical "bug" killers. So great has been the deluge that the professional entomologist is swamped, to say nothing of the layman. The presence of more and better insecticides will be all to the good when we find and understand the place and usefulness of each. But in the meantime we are in danger of being swept off our feet by high powered ballyhoo.

We hear a lot about "one right insecticide for each bug problem" these days. It sounds wonderful, and the old saying about one man's meat being another man's poison comes to mind. Biologically that old saying is generally untrue. We don't know just what this thing



Cartoon by R. W. Fisher

A flood of new insecticides has hit the market, each with its special merits—and its dangers, too. With some, the dangers may outweigh their possible usefulness. None should be used without knowing all the probable results, and what is necessary for safe handling. An entomologist who has tested many of these products describes their most important characteristics.

called "life" is, but we do know that it is basically the same thing in all living creatures, plants and animals and that for that reason chemicals that strike at life in one form are apt to endanger life in any other form.

True, we already have some poisons that kill one kind of animal and do not kill others; for example, rotenone kills insects, and fish, but not man. But the different action is not so much due to any fundamental difference in "life" in the two organism as to differences in the protective devices (skin, hard outer covering, etc.) with which life has surrounded itself in each case. Since this is so, the more closely related two animals are, the more likely it is that they will both be affected by the same poison. Thus it is more likely that a material will kill insects and not kill man than that it should kill one insect and not another.

What I am getting at is that any chemical which is poisonous to one kind of life may, until proof to the contrary has been furnished, be suspected of being poisonous to all kinds of life, and especially to closely related forms. This means that any new insecticide must be held suspect as a possible killer of not only the insects that it is aimed at, but of beneficial insects, other animals, man himself, and possibly plants. Before widespread use of any such product is made we should know what it may and may not kill. That takes experimenting, and experimenting takes time.

The pendulum has made a full swing from commendable caution to frightening disregard of possibilities. By 1945, many hundreds of animals had been used in testing the various dangerous aspects of DDT—and even

then commercial and government men alike were publicly expressing their fears concerning the possible consequences of its use. The use of DDT in apple orchards has precipitated new problems with European red mites, woolly apple aphids and red banded leaf rollers. The excretion of DDT in the milk of animals fed small dosages has since been established.

Yet today, of the many new products that are being ballyhooed, not one has received nearly as much testing as DDT far back in 1945—and which proved inadequate, at that. Consistency cannot be considered one of our strong points.

Canadian government officials have maintained a commendable conservatism in licensing insecticidal sales, but hard pressed by pressure from recommendations made by our less cautious neighbours, and by the clamoring of commercial concerns, they cannot always hold out until they have all the evidence they need to make well-founded decisions. We must depend on the common sense of the public not to be lured into dangerous waters.

With this preamble let us look briefly at some of the new products in question.

BHC, "666" or "Gammexane"— (Hexachlorocyclohexane)

This wartime insecticide was developed in France and England. It is a mixture of chemicals which depends for its effectiveness on the amount of so-called "gamma" (gamma isomer) present. Dusts, wettable powders, smoke bombs, seed treatment products, and solutions containing 666 are on the market or will be soon. The

toxicity to insects is phenomenal, while that to other animals is no greater than that of DDT, which is comparatively low. Little plant damage has been reported but large dosages definitely stunt seedlings. It kills insects by contact, as stomach poison when eaten, and by the fumes given off. Its greatest weaknesses are its short lived effect on plants under field conditions and its unpleasant odor which flavors fruits and roots.

Its greatest promise is in the control of aphids and soil-infecting forms like wireworms and root maggots. Phenomenally low dosages, less than 1 lb. of gamma per acre, are recorded as effecting wireworm control. This is the first economical treatment known for these pests. In the south it is being used for some cotton pests and for plum curculio on peaches. Its use here for the last named insect, is not being advised until further information has been secured. It has no value for codling moth or warble flies, but is effective on lice and other external parasites of animals, especially mites and ticks. Great strides are being made toward deodorization of this product.

Chlordane (first known as 1068)

This material is a viscous liquid which can be readily mixed with kerosene. It has marked toxicity to many insects, and considerable residual effect like DDT. Limited tests seem to place its toxicity to man somewhere near that of DDT. Five and ten percent dusts, emulsions,

and wettable powders are available. So far the greatest use has been for household pests.

The ease with which it mixes with kerosene and the invisible toxic residue left on sprayed surfaces is a big asset. It has proven highly effective for cockroaches and ants. Two percent solutions in oil are used. The action is more rapid than that of DDT. In limited tests it seems highly promising for grasshoppers, and its use on animals for external parasites including ticks is reported effective. Further work is needed on its toxicity to many insects and to higher animals, especially the toxicity of solutions. Wettable powders and emulsions, as used so far have not been reported as causing toxicity symptoms.

Toxaphene (3956)

Toxaphene is a waxy solid, processed as dusts (20% & 25%), wettable powders (25%), water miscible solutions, and oil solutions. It would appear to be very similar to Chlordane in its toxicity to all forms, but has not given as consistent results or as long residual effects. Further investigation is needed and considerable is planned for the coming year.

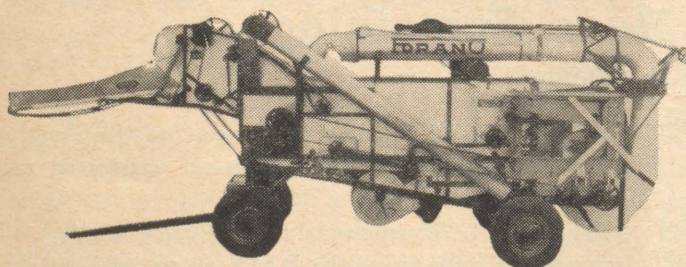
Hept. & Tepp

Hexaethyltetraphosphate & Pyroethyletrophosphate

Hept is a product of German insecticidal research during the war; Tepp a recent derivative. They have been publicized for the control of the serious European red mite threat in orchards. Aphids are also highly sus-

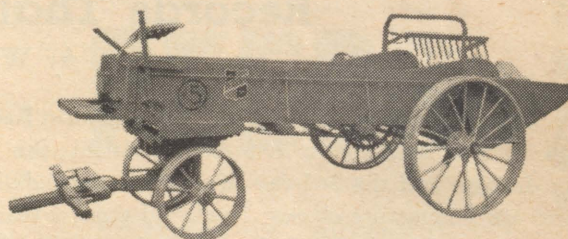
FORANO

FARM SPECIALTIES ARE RELIABLE



ALL-STEEL THRESHER

The Forano All-Steel Thresher, equipped with the well known Hart Feeder is a thoroughly modern machine. When desired, it can be supplied with patented Clover Hulling Attachment.



MANURE SPREADER

The Forano Manure Spreader, with a capacity of 40 to 45 bushels, is well liked for its excellent performance and extremely low maintenance cost.

FORANO

L I M I T E D

DESIGNERS • FOUNDERS • FABRICATORS
HEAD OFFICE & WORKS:
PLESSISVILLE, QUE.

Manufacturers of Reliable Machinery **SINCE 1873**

ceptible. The toxicity to man, even from contact, is so high that great precautions are advisable in handling these materials.

There are probably no serious residue problems, as in the presence of water the materials rapidly break down. In fact this rapid deterioration in the tank, on the tree, or even in storage is a serious limitation in the use of Hept and Tepp. The products also tend to corrode equipment. They are sold as 50% emulsifiable solutions, dusts and aerosols, the latter for greenhouse use against mites. Tepp is probably the more effective of the two materials.

Piperonyl Compounds

The piperonyls (piperonyl butoxide and piperonyl cyclohexanone) are used with pyrethrins to enhance their effect, and lower the dosage necessary. It is said that they also prolong the very short-lived residual effect of pyrethrins. The piperonyls are not used alone.

Parathion (Thiophos)

Parathion is the newest and most spectacular of the new insecticides. It originated in Germany during the war and has been further processed in America. Supplied for experimental work (not sold as yet), it is in the form of a wettable powder, 15% active chemical. Its toxicity to a wide variety of insects and mites has proved phenomenal. The hopes are high that it may prove an effective "single treatment" for varied insects and mites on such crops as cotton, peaches and apples where several chemicals are now used.

However, its toxicity to man is high, and operators may be endangered by contact. Residues probably disappear in a short time. Investigational work this year

will be aimed at studying its toxicity to warm blooded animals and whether or not it is absorbed by the plant, thus rendering the plant toxic. When we have that knowledge it may be possible to use this tool safely and effectively. On the other hand the dangers involved in its use may outweigh its promise.

Methoxy-DDT or Methoxychlor

This close relative of DDT has shown some promise for codling moth and lice. It is still in the experimental stage.

DDD or TDE (Rothane)

DDD is another close relative of DDT. It is definitely inferior in general insect killing power, but has shown great promise against some insects such as the corn ear worm. It is probably less toxic to man than DDT, but needs further testing.

Neotran & DMC

Neotran and DMC are new materials under test for mite control. Both have shown promise against the European red mite, but Neotran is reported as causing some russet on apples and DMC as erratic in results.

DD and Ethylene Dibromide

DD and Ethylene Dibromide are liquid fumigants developed for treating soil for soil pests as nematodes and wireworms. Both products are more highly effective and cheaper than previously known products, but still too expensive for use except on land of high value. There are also records of poor results under some conditions. Much more study of temperature and soil type effects is needed. There is also a hazard involved in careless handling of these chemicals. Several devices for their application on small or large scale are on the market.

Records That Mean Something

by W. L. McKinnon

AYRSHIRE dams milked under the Canadian Record of Performance are in 2 main divisions; the 305-day division and the 365-day division. In each division there are 3 immature classes; 2-year-old class; 3-year-old class; 4-year-old class; and also a fourth class the "mature" class for cows 5 years old or older. The fat requirements for all Canadian Ayrshires are on a 4% basis.

The milk requirements in each of the immature classes in both divisions increase by 2.74 lbs. per day for each day the animal is over 2 years until she is 5 years of age, when she becomes officially a "mature" cow. There

are therefore, 365 different "requirements" for Ayrshire cows in each of the three immature classes in each division.

There are 1,095 different "requirements" for Ayrshire cows which milk under the R.O.P. in the 305-day division and there are also 1,095 different "requirements" for Ayrshire cows in the 365-day division. This makes a total of 2,190 different "requirements" for Ayrshire cows milking under the R.O.P. in Canada.

To compare the actual production records based on differing "requirements", without measuring each record by the "requirements" for the record would be inaccurate.

Our production records from mature cows aren't comparable except in a vague sort of way, says this prominent breeder in an article condensed from the Canadian Ayrshire Review. He puts forward some good ideas on how to facilitate comparisons — ideas that can be used to take much of the chance of improvement of any breed.

rate. Actual production records of immature cows are **incomparable except in a very vague kind of way**. If on the other hand each Ayrshire R.O.P. record were calculated to its "mature equivalent", then such "mature equivalents" would be on a strictly comparable basis. All records converted to the "mature equivalent" are accurately comparable and there would be no vagueness of any kind in the comparison.

By using the "mature equivalent" any one record or any "average of records" could be compared with mathematical accuracy with any other one record or with any other "average of records".

What Was Done in U.S.

For the reasons similar to the above the Ayrshire Breeders' Association of the United States very wisely calculate all records of United States Ayrshire dams to the "mature equivalent". Their "mature equivalents", however, are all on a 305-day basis. They had to adjust themselves to a much more complicated set of conditions in United States than we have in Canada.

We have in Canada, good grounds to calculate the "mature equivalents" on a 365-day basis, especially when the "requirements" of a mature cow on a 365-day basis works out at exactly **10,000 lbs. of milk and 400 lbs. of fat.** Like the decimal system this 365-day "requirement" figure for the mature cow is easy to work with an easy to understand. It makes the best "standard of measurement" for Canadian Ayrshires.

In the year ending March 31st, 1939, 1,977 Canadian Ayrshire cows "qualified" under the R.O.P. 807 were in the 365-day division and 1,070 were in the 305-day division. In the year ending March 31st, 1943, 2,612 Canadian Ayrshire cows "qualified" under the R.O.P. Of these, 1,018 were in the 365-day division and 1,594 in the 305-day division. In the year ending March 31st, 1945, 2,699 Canadian Ayrshire cows "qualified" under the R.O.P. Of these 1,097 were in the 365-day division and 1,602 in the 305-day division. Of the Ayrshire cows which "qualified" in Canada in each of these three years, about 60% "qualified" in the 305-day division and 40% in the 365-day division. In Canada there is probably a much larger percentage of Ayrshire cows which "qualified" in the 365-day division than there are in the United States.

If we base all our descriptions and comparisons on a strictly Canadian pattern instead of trying to match what is being done in the United States it will be easier for all breeders both in Canada and in the United States to understand Canadian pedigrees.

Space for Baby Chicks

Each baby chick should have a half foot of floor space until it is 8 weeks old, then the space should be increased to a square foot.

SHIELD YOUR TREES WHEN APPLE SCAB SPORES ARE ACTIVE

Niagara
Kolosprawy
your trees must be kept under

KOLOSSPRAY contains a high percentage of sulphur which spreads and adheres thoroughly. This sulphur is microfine, and is processed with fixed bentonite sulphur. This combination prevents caustic reaction on this foliage.

From pre-pink through the most of the growing season

your trees must be kept under a shield of sulphur, to keep apple scab from lodging on fruit and foliage.

KOLOS[®]PRAY is especially adapted to meet the fruit-growing conditions in the Province of Quebec. The finest apples grown in Canada are those having the benefit of KOLO protection against damage by apple scab.

NIAGARA gives practical personal assistance to commercial fruit growers and vegetable growers. For this service consult your local Niagara Fieldman.

*Distributed in the Province of Quebec by
La Coopérative Fédérée de Québec*

NIAGARA BRAND SPRAY CO. LIMITED,
BURLINGTON, ONTARIO

M M M M M M M M M M M M
M M

MASTER FEEDS

Preferred by successful
feeders for all classes of
livestock, poultry, fur
bearing animals and
dogs.

M TORONTO ELEVATORS LTD. M
M TORONTO M MONTREAL M
M
M M M M M M M M M M M

Extension Workers Compare Notes

by J. S. Cram

A number of people whose business is to see that agricultural information reaches the farm family met in Quebec City recently to compare notes on their methods of handling this job. While there they organized a Canadian Agricultural Extension Association, an independent group of extension administrators from the dominion, provinces and universities.

Most of the discussion centred around agricultural representatives and junior clubs. It started off with a description of 4-H Club work in the United States, given by J. H. Lennox, assistant 4-H state leader in New York. Mr. Lennox explained that 4-H stood for Head, Heart, Hands and Health, and that the clubs were concerned, in the final analysis, with developing good citizens. He was followed by A. H. Martin, assistant chief of the Agricultural Representatives Branch in Ontario, who described what was being done under the Ontario junior farmer program.

J. G. Taggart, director in chief of agricultural services in the Dominion Department of Agriculture, pointed out that there was no organized co-operation between the dominion and provinces to speed the flow of information to farmers. Tracing the development of agricultural services since they were started in the 1860's, he said that extension, as it is now understood, had been started about 40 years ago. Since it is a part of education, which the B.N.A. Act had handed to the provinces, he believed that any move toward co-operation would have to come from the provinces.

Pointing out the great gap between knowledge and practice, Mr. Taggart said that specialists in marketing, grading and other lines had considerable information that farmers needed; but there was no provision for getting it to them.

Dr. Georges Maheux, Quebec director of research and information, said that an extension worker needed to be teacher, leader and organizer. As a teacher he must not only have the knowledge required, but also the tools essential for doing the job, and skill at using these tools; which included lantern slides, films, film strips, photo displays, posters, maps and graphs, specimens and demonstration materials, radio programs and press releases.

Training for extension workers was also discussed, and it was pointed out that no Canadian university offers post-graduate training for this purpose, and that U.S. courses did not offer the training needed for extension work in Canada.

Pellerin Lagloire, secretary of the Quebec department of agriculture, pointed out that agriculture is situated at the crossroads of applied science, and demands that its disciples have fresh and up-to-date knowledge. He be-

lieved that an extension worker should take post graduate work and should keep posted through reading, attending economic and scientific conventions and taking an active part in professional societies. He further pointed out that employers should see that agronomes had enough time to do their work properly, should assure them of adequate equipment, further the organization of refresher courses and forums, provide travelling facilities outside the worker's own territory, and assure promotion and better salaries to those who improve their qualifications for their work.

Dealing with the forum system of developing local programs, Mr. Lagloire said that if it were continued and extended it would produce a mass of information and ideas which should form a sound base for an adequate agricultural program. He believed that Canadian agriculture could be fully developed only when there was an over-all plan worked out by specialists in agriculture, rather than by politicians.

Dealing with training of men on the job, most of the men present favoured short courses with the stress on leadership and extension methods, rather than on specialized technical information along other lines. It was pointed out that extension workers could turn to other specialists for information they needed.

J. E. Dube, Quebec director of agronomes, described how these men concentrated their efforts on working with organized groups of farmers, the department maintained a pool of specialists, some at the central office, others at colleges or regional agronomer headquarters, to whom the local agronomer could turn for technical help in solving local problems. In addition, last year the province held 11 forums lasting two or three days. Each of these forums was attended by agronomes from seven or eight neighbouring counties, and each dealt with technical problems.

Dr. W. V. Longley, director of extension in Nova Scotia, described the technique used in the United States, where the extension man is a two-way link between the farmer and the departments of agriculture. He is trained to look for new problems arising on farms, pass them over to technical specialists for investigation, and then take the results back to the farmers.

The organized use of press and radio to spread agricultural information was also discussed. Dr. Maheux described Quebec's extensive work along this line. Several of the others, although they did not mention any efforts to co-operate with the press, described radio programs which had been developed in their provinces. Mr. Martin described the widespread use of radio in Ontario, often through Junior Farmer groups, and described a co-

ordinate press and radio project at Cornwall.

Professor J. G. Rayner of the University of Saskatchewan, Geo. H. Black of the Alberta department, and Miss Echo Lidster of British Columbia, described refresher courses held in their provinces, with outstanding speakers brought from other provinces and the United States to deal with technical subjects.

The group decided to organize as the Canadian Agricultural Extension Association, with N. C. MacKay of

Winnipeg as president, Miss Mary Powers as Vice-president, E. F. Pineau of Ottawa as secretary, and J. E. Dube of Quebec City and A. H. Martin of Toronto as executive members.

During their session the extension workers were guests of the Quebec City Branch of La Corporation des Agonomes at a banquet in the Parliamentary restaurant, with Dr. Albert Rioux, president of the Quebec local, acting as chairman.

Poultry Questions Answered

by W. A. Maw

Q.—Is the hatching date the same for all breeds for early fall egg production?

A.—The age at sexual maturity or commencement of laying differs between the Leghorn and the Plymouth Rock or other similar general purpose types of pullets. The Leghorn usually matures about one month earlier in age than the heavier birds. Differences in maturity also vary greatly in different strains of stock within a breed. Most good strains of layers require at least six months for growth to maturity before the majority of the pullets to commence egg production, although some individuals will start earlier.

Fall eggs should be coming during the month of September in order to profit most from rising egg prices. September eggs necessitate chicks hatched during late February or early March, for such breeds as Plymouth Rocks, Reds and Hampshires while Sussex usually require about two additional weeks for growth and Leghorn can be hatched four weeks later, or during late March or early April.

Q.—What are the advantages of early hatched chicks?

A.—The experience of a program of early hatched chicks for early fall egg production during this year has proved to be of tremendous economic value to the industry. Never before have we seen as great egg production in Eastern Canada as during this year. Greatly increased exports of eggs to Great Britain have resulted, with great advantage to the poultry industry. Without the early-hatched pullets such production would have been impossible. The present feed price crisis should not cause producers to fail to realize the economic advantage of early chicks for 1948.

Q.—Why is crossbred stock in demand for meat production?

A.—The apparently increasing demand for crossbred chicks for growing as meat stock principally has been due mainly to the faster growth and higher livability found in such stock. Fast feathering has also been a factor, since many of the crosses produced have been with the New Hampshire as one parent. The New

Hampshire is fast feathering in most present strains; but fast feathering may also be had in such other breeds as Rhode Island Reds, Barred Plymouth Rocks, Wyandottes and Sussex.

Leghorns are also fast feathering, and many cross-breds are produced for meat and egg where the Leghorn is top-crossed by fast feathering B.P. Rocks, New Hampshires or R. Island Reds. The heavy type cross is preferred for meat alone; and where reasonably good egg production exists in both parent stocks, the resulting pullet progeny are satisfactory layers.

Body shape must be good in any breed, whether bred pure or crossed for meat production. Body shape is dominant through the male, and therefore of major importance in selecting males for crossing.

Q.—How do small and large fowl compare in amount of edible meat?

A.—Much can be said for the small-sized fowl, as represented by the Leghorn hen, as a dressed carcass. Market discrimination in price against small fowl is based largely on ignorance of the value of this size of fowl as compared with large-sized carcasses. Discrimination has no doubt been due to a lack of demand for the small fowl. The small fowl is usually about three and one half pounds in weight, whereas large fowl, which are in greater demand at a higher price, average about six pounds in weight.

The Consumer Service of the Dominion Department of Agriculture has shown that small-sized fowl are as economical for table use as large stock.

	Small fowl	Large fowl
Average weight	3½ lb.	5½ lb.
Total meat	22.1%	21.6%
Dark meat	9.8%	10.5%
White meat	13.1%	11.2%
Abdominal fat	2 ozs.	4 ozs.

The above figures show that the small fowl has slightly more meat than the larger fowl in relation to the total dressed weight. The proportion of white or breast meat appears to be greater in relation to dark or leg meat.



DEPARTMENT OF AGRICULTURE

*Activities, Plans and Policies of the Quebec
Department of Agriculture*

Livestock Production in 1948

by Pierre Labrecque

It is a regrettable but nevertheless definite fact that during the winter there has developed a theory that the farmer would be well advised to cut down on his production of milk, meat, eggs and poultry products. Factors causing this point of view are the general increase in the price of feedstuffs, poor crops in most parts of the province and crop failures in other parts in 1947, and the general unbalance between the cost of production and the market price obtained. Finally, the packing house strike during the fall did little to encourage farmers to try to keep livestock production up to the highest possible levels.

Whatever the cause, there have been many drastic changes in production plans on many farms; changes which do not seem justified, when one examines carefully the prospects for the next few years. Market demands for all sorts of livestock products—milk, butter, cheese, meat, eggs—both on the home market and on the export market will certainly not be less, and I am confident that our market is almost unlimited. Prices for export are higher than last year, and there are excellent opportunities for profitable sales, even in spite of the increased cost of feeding, for most of our products. Therefore, I have no hesitation in saying that we should keep our livestock operations at the highest possible point.

Taking the most important products in turn, I would like to show why we should maintain or increase rather than decrease our production, and to give a few ideas as to how to manage to get around the difficulties we have to face.

The chief source of revenue on Eastern farms is the dairy herd, and every possible effort should be made to see that the herd is managed efficiently, and that the production of the individual cow in the herd is kept at the highest possible level. This is the way to keep production costs low enough to make the farm a profit-maker.

If high production is recommended during periods of low prices, it is even more important that we have high production when prices are good. For 1948, Canada is assured a price of 30 cents for cheese, 5 cents more than last year, and we have a contract to sell 50,000,000 pounds to England at this price. We barely make enough butter to meet local demands, and there is every indica-

tion that butter price will hold in line with the guaranteed price for cheese. Fluid milk is a necessity and not a luxury, and milk prices are likely to hold steady. In short, there are sure markets for all our dairy products in 1948 and we should be in a position to take full advantage of them.

We must, therefore, pay particular attention to the feeding of our dairy cows, so that they will produce the greatest possible amount of milk during the months ahead. And this involves the planning of a complete programme of crop production on the farm so that the necessary feed will be available all the year round. The bulk of the milk used for butter and cheese comes from pasture; the better our pastures, the greater volume of milk will we get. A good dressing of fertilizer on the pasture early in spring is good insurance against a poor season, and will go far toward making up for the shortage of feed grain, which may well be with us for some time yet. Fertilized pastures yield better, and if the amount of land that must be kept in pasture can be reduced that much more land is free for use for growing feed grain. And we must grow as much of our own feed as we can in future and so reduce our dependence on supplies from the West.

Proper feeding is one of the most important points in livestock production, but quality in the herd must also be kept in mind. Constant care must be taken to use only the best of breeding and management methods. Only the best should be used as breeding stock, and all animals with hereditary defects must be ruthlessly culled out. This is the time to get rid of the poor stock and keep only the best.

Suppose 5 cows with an average production of 8,000 pounds of milk produce 40,000 pounds in the course of a year. With cows giving only 4,000 pounds each, it would take 10 cows to give the same amount of milk, and the extra feed needed to keep the extra five cows, according to figures published by Prof. Toupin at Oka, would be 7 tons of hay and 22 tons of silage or the production of about 7 acres of land, which could have been used to grow 210 bushels of grain, equivalent to 3 tons of feed. The lesson is obvious.

Hog Production

It is most unfortunate that many hog breeders acted

so hastily in getting rid of practically all their hogs at the end of 1947. Those who could see no future in hog raising should have waited a little longer before taking such drastic measures. Market prices have finally settled down at levels which appear to make hog raising profitable. England has contracted for 195 million pounds of bacon during 1948 at \$36 per 100 pounds, \$7 more than in 1947. This is an assured market which is ours the year round, and there is no good reason why we should not take every means in our power to supply it, always provided that we make sure that we supply the type of bacon that this market demands.

The best way to make sure of this market is to see that the hogs we sell are of the weight and quality required. Many hogs are going to market too light; lately, half of all the hogs marketed were either too light or improperly finished, with the result that they cannot

find a place either on the export market or on the local market. If this continues, the producer can blame only himself for any reduction in price that may occur.

Our advice is to produce as many hogs as possible, marketing them well finished and at the proper weights, and to see that sows farrow twice a year, notwithstanding feeding difficulties.

Poultry

There was some uncertainty during the fall about the future of the poultry industry, but here again things are looking up. The price of eggs and poultry meat is good. The export market can absorb 80 million dozen eggs at a better price than last year. Here again production per hen is important: a 200 egg hen is more profitable than one that lays 120.

In summary, in spite of undoubted difficulties, it seems clear that our livestock production can profitably be kept at a high level of efficiency.

Montreal Welcomes Canadian Jersey Cattle Club

Montreal was host this year to the annual meeting of the Canadian Jersey Cattle Club, and a good representative crowd, including members from the West, the Maritimes, Ontario and Quebec, assembled on March 5th in the Queen's Hotel to hear reports of the operations of the society and to listen to the speakers who had been invited for the occasion.

The national president, J. F. Desmarais, was unable to attend but his address of welcome was read by the secretary, while vice-president Dumville presided at the meetings. Mr. Desmarais, the first French-speaking president the Club has ever had, was particularly disappointed at not being able to attend this, the first meeting of the National Club ever held in Montreal. He felt that Jersey milk sales throughout the country were holding up well, and was especially pleased with the results of the policy of placing young Jersey bulls at strategic points. He felt that these bulls had been instrumental in improving the breed, and noted that several new members had joined the Club during the year.

The report of the secretary-treasurer, James Bremner, showed 12,494 registrations for 1947 and 11,952 transfers. Fewer animals exported (2,049) brought down the total transfers from last year's figures. Total membership in the Club now stands at 2,072. Financially, the Club is in good shape, with a surplus for the year of \$5,795.63, with total revenues of \$67,218.54.

John W. Pawley, who is the delegate of the Jersey Club to the Dairy Farmers of Canada, introduced the resolution against margarine, and for the first time at any meeting we have attended, a voice in favour of the sale of margarine was heard. Senator Hardy, while admitting that his words would not affect the passing of the resolution, could not see that the sale of margarine in Canada

would bring such drastic losses to dairymen as opponents of the measure claim, and he, with three other members present, voted against the resolution.

Another resolution which was adopted would amend the constitution of the Club to prevent the progeny of any cow classified "poor" from being registered.

The business of the meeting was completed in the forenoon and the luncheon period and the afternoon sessions were given over to addresses which were of more than usual interest. Col. Bartley Bull of Brampton, Ont., described a recent trip to South Africa, and gave a vivid story of farming conditions there, where drought conditions have to be faced. In particular, he described one 11,000 acre ranch that could support only 200 head of cattle (Jerseys), 3,500 sheep and a few head of horses.

Dr. W. W. Yapp, who is director of dairying at the University of Illinois, discussed a few highlights of the task of the successful breeder. He foresaw a larger



Officers and directors of the Canadian Jersey Cattle Club.

market for whole milk, and felt that more and more importance would come to be attached to the non-fat portions of milk. There should be more importance placed on the quality of dairy products as they leave the farm, and suggested a single standard of quality for all milk. He was emphatic in his belief that breed associations would render the best service by concentrating their attention on young and beginning farmers; the best progress will be made with junior farmers' clubs. He also suggested that advertising might well be done in conjunction with advertising of other products — for example, a biscuit manufacturer advertising that his biscuits would be more nourishing if eaten with milk. More research on the uses of milk and milk products is needed, and he suggested that the Club appoint a research committee to study this point.

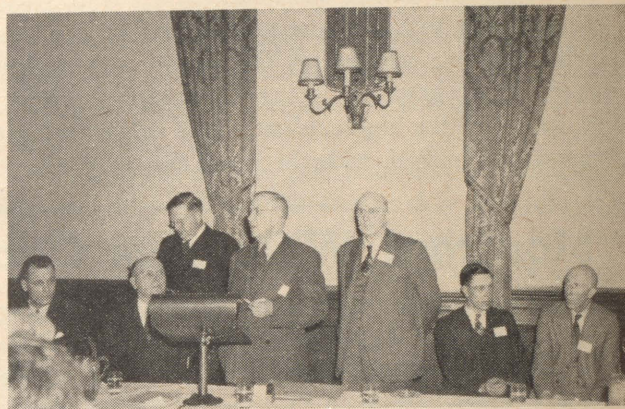
Turning to the specialized subject of breeding, he reviewed the important genetic principles, pointing out that both parents contribute equally to the offspring, and if the breeder does not have, in his own herd, the qualities he wishes to propagate, he must bring new blood in. He felt that there is much greater opportunity for selection in bulls than in females, but since it is more difficult to identify good characteristics in a bull, it is important to have a standard for evaluation of the worth of a sire. As criteria for choosing young bulls, he mentioned: 1. He must be the progeny of a proven bull that meets all the requirements. 2. His dam must have a record at least equal to the best cow in the breeder's herd. 3. Both his sire and dam must have good conformation. 4. He must not have any undesirable characteristics that might lower the standard of the herd. 5. He should have sisters in milk with satisfactory records and conformation. 6. The records of his daughters should be extensive, and up to or better than those of the cows in the upper half of the herd.

Prof. I. R. Bierly of New York State College of Agriculture spoke on methods of saving time and costs around the dairy farm. There is great variation in costs of production from farm to farm, and the greatest challenge today is to reduce these costs. Labour is the largest single item in production costs on dairy farms, and anything that could be done to plan the work so that it could be done in the least possible time was a direct saving. Slides and moving pictures illustrated ways in which time could be saved and costs reduced around the farm.

A number of constructive breeders' certificates were presented at the business meeting. Many of these went to farmers in the West who were not present at the meeting, but among those delivered were certificates to W. H. Miner, Pinetree Farm, Granby, P.Q., G. S. Pettit, Caledon, Ont. and Mrs. J. P. Norrie, Fundy Jersey Farm, Truro, N.S. Mrs. Norrie was acclaimed as the first woman to have received this certificate in the history of the Club.

At the meeting, directors for Quebec were elected; these were J. F. Desmarais and C. M. Yates. Other directors, elected by mail ballot, are Messrs. Campbell McKay, Rothesay, N.B., Col. B. Bull, Brampton, Ont., Frank M. Chapman, Pickering, Ont. John W. Pawley, Caledon, Ont., Ford S. Papple, Brantford, Ont., W. D. Thomson, Bookli, Ont., N. Reid Clarke, Didsbury, Alta, and A. E. Dumvill, Sardis, B.C.

President for 1948 is again Mr. J. F. Desmarais. Vice-president is A. E. Dumvill and James Bremner, of course, continues as secretary-treasurer.



Personalities at the Jersey meeting. Left to right: Prof. I. R. Bierley, D. W. W. Yapp, James Bremner, W. H. (Bill) Hunter, A. E. Dumvill, W. D. Thompson, C. MacKay.

Agricultural Merit in District Four

The Agricultural Merit Competition, by means of which the Provincial Government publicly recognizes the accomplishments of our better farmers, will be held in 1948 in District Four, which includes the counties of Berthier, Champlain, Gatineau, Hull, Joliette, Labelle, Laviolette, Maskinonge, Montcalm, Papineau, Pontiac, Portneuf, St. Maurice, Temiscamingue and Three Rivers. The last time the contest was held in this district was in 1943, when 138 farmers entered. The winner that year was Pierre Tellier, whose farm is at Ste. Elizabeth de Joliette.

To enter, a farmer must have been farming the same place, either as owner, operator or renter, for at least five consecutive years, and the farm must be at least 60 acres under cultivation. Application forms may be obtained from the agronome or directly from the Secretary, Agricultural Merit, Department of Agriculture, Quebec. June first is the closing date.

National Barley Contest Again in 1948

The National Barley Contest will be in operation again in 1948, and although final details still remain to be settled, it is expected that the same general conditions must be met as in the past, i.e., the two varieties that may be used will be Montcalm or OAC 21, and a 40-bushel sample will be needed for fall judging. Five acres is the minimum plot that will be judged.

Quebec Holstein Breeders Meet in Montreal

A feature of the annual meeting of the Quebec Branch of the Holstein-Friesian Association of Canada, held in Montreal on March 8th, was the strong representation from the National Association. The president, three vice-presidents, the secretary and a director were all present and were enthusiastically welcomed when introduced. Local members of the association were out in force, and the meeting as a whole was a very successful one.

The last ten years have been years of consistent progress for the Society. Hermas Lajoie, in presenting his secretary's report, quoted a few figures to prove this. For example, in 1937 membership in the Society was 812; today it is 1,330. The total receipts ten years ago were \$11,527; the figure for the year just ended is \$25,077. According to Mr. Lajoie, "Ten years ago the Holstein cow was not at the top in Quebec. Today the Holstein is the most popular breed in the province and we have a great faith in the future."

His comment about the lack of popularity of the Holstein in early years was supported by President Brown, who recounted some of the trials and tribulations of Holstein breeders in the early days. Now, however, Mr. Brown pointed out, the Holstein-Friesian Association has almost twice as many members as the other five leading breeds combined, and is the largest of its kind in the Empire.

Jack Fraser, President of the parent association, pointed out that Quebec has contributed more to the breed in both Canada and the United States than any other branch, and congratulated the members on their progressive spirit. George Clemons, making a hit by speaking in French as well as in English, came to the meeting armed with certificates of longtime and superior production which he presented to a number of outstanding breeding establishments in Quebec. Recipients of the

red seal certificates were Brown Corporation, Raymondale Farm, Wm. Bousquet, R. Sedillot, Leon Sedillot, N. Guertin, Mrs. B. M. Hallward, K. J. Finlayson, J. J. Murphy, Nap. Veilleux, the Urselines de Merci and the Maison St. Joseph.

* The meeting, through the medium of the resolutions, asked the Health of Animals Branch of the Dominion Department of Agriculture to increase its staff so that the task of identification, testing and certification of animals for export can be kept up to date and that the work may be accurate and complete. Another resolution suggested that the Civil Service increase its scale of salaries for federal veterinarians, so that more men would be interested in going in for this line of work which is so important to the breeders. The meeting also asked that the system of accredited herds be re-established as it was before the war.

The Bois-Franc Club, of which Wilfrid Verville is president, has 200 members and is the largest of the sixteen active Clubs in Quebec. Next comes the Montreal-Vaudreuil Club with 188, and all clubs report successful operations during 1947. Mr. Lajoie looks after 12 of the clubs, and the assistant fieldman, Jean Real Proulx, has charge of those in Quebec, Lake St. John, Lower Quebec and Bois-Franc. All the clubs take part in exhibitions and hold Black and White Days during the year.

Donat Giard was elected president for 1948, with E. E. Richmond of South Durham going in as vice-president. The executive consists of the Hon. Antonio Elie, W. A. Hodge, Abbe Donat Godin, H. L. Guilbert and Jules Montour, with Hermas Lajoie continuing as secretary-treasurer.

We Hatched More Chicks Than Ever in 1947

Figures just compiled by the livestock Branch of the Provincial Government show that 1947 was a record year for numbers of chicks and turkey chicks hatched in private and co-operative hatcheries.

Co-op. hatcheries hatched 7,058,744 chicks and 339,693 turkey chicks. Private hatcheries hatched 2,949,509 and 125,593 respectively, or a total of 10,008,253 chicks and 465,286 turkey chicks. The effect of the organization of new centres for turkey raising is reflected in the large number of turkey chicks hatched last year, more than twice as many as in 1946.

The past year was also the best for percentage of hatch: 68.64% in co-operative hatcheries and 68.55% in private hatcheries. A total of 15,264,235 eggs were incubated.



Dr. Mercier explains the artificial insemination programme to the members of the Quebec Holstein Breeders Association. Seated is J. A. Brown of Huntingdon, retiring president.

Quebec Jersey Breeders Review Progress

A good representation of Jersey breeders, members of the Provincial Association, turned out at the Queen's Hotel in Montreal on March 4th for the annual meeting of the Association, held one day before the meeting of the Canadian Jersey Cattle Club. C. M. Yates, vice-president (who was later elected president for 1948) was in the chair and conducted the meeting.

The report of the secretary-treasurer, Bill Hunter, showed that the Victory Bull campaign recently conducted throughout Quebec had given very definite results. Recently a large number of requests for assistance have come from the Abitibi district, and it was recommended that particular attention be paid to this area in the coming year. In the Champlain, Abitibi, Lake St. John, Matapedia and Temiscouata districts, where the largest number of Victory Bulls were distributed, very good results were reported and it was in these districts that the greatest amount of follow-up work has been done in the past two years.

The greatly increased interest in showing Jerseys at all the fairs and exhibitions was noted; the Quebec show had the largest entry of Jerseys of any of the major shows in Canada, and a marked improvement has taken place in the general quality of the exhibits at all shows.

During the year the Eastern Townships Artificial Breeding Centre continued to give good service in Stanstead County and during the year the Richmond Unit set up their own organization and are planning to operate with their own breeding battery of sires. Apparently over 1,000 cows will be bred artificially this year from the Stanstead Unit.

The report pointed out an alarming drop in the consumption of Jersey milk throughout the principal markets of Quebec, and it was suggested that this might be an appropriate time to consider a campaign of advertising of Jersey milk to the consumers.

On the question of advertising Jersey milk, prolonged discussion over the question of selling trade-marked milk in Quebec took place. A considerable amount of work had already been done by a committee appointed at the last annual meeting, and it was finally agreed that the members of the association are in favour of this plan, and the incoming board of directors were authorized to proceed with the project as rapidly as possible, although certain members felt that nothing definite should be arranged unless and until the proposals had been brought to another general meeting for final approval. But the plan has proved very successful in Ontario, and it was decided that it would not be necessary to call another general meeting to ratify any arrangements that the directors might make.

The slate of directors for 1948 includes Messrs. R. W. Simpson, W. L. Cleveland, H. Houle, D. M. Rowatt,

A. Bazinet, M. Lemay, E. Couture, A. Healy, W. E. Ashton, J. A. Ste. Marie, C. M. Yates. As mentioned above, Mr. Yates was elected president and W. Elmo Ashton will be vice-president, with Bill Hunter carrying on as acting secretary-treasurer until a replacement for him can be found. Mr. Hunter finds that the duties of fieldman and editor of the Canadian Jersey Breeder (which has turned out to be a very successful publication) require all his time, and he has asked to be relieved of his duties as secretary of the Association.

Membership in the Provincial Association was reported as 340 at the end of October, 1947, and additional memberships since then have brought the figure up to 388 at the time of the annual meeting.

Ubaldo Pilon Heads Poultry Division

The new head of the poultry division in the Provincial Government is Mr. Ubaldo Pilon, B.S.A. who has been named to replace C. E. Benoit, who is now manager of the Quebec Poultry Co-operative.

Mr. Pilon, a graduate of Ste. Anne de la Pocatiere, has been on the staff of the department since 1931; until 1939 he was a livestock instructor and divisional agronomist in Abitibi-Temiscamingue. In February, 1939, he was appointed assistant director of the Federal Experimental Farm at Kaspuskasing, and has held this post until his latest promotion.

YOU SKIM CLEANER, FASTER— AND SAVE MONEY WITH THIS SEPARATOR

Find out for yourself how much *time* and *work* you can save — get a De Laval World's Standard Series Separator. Remember—time is money! Trouble-free performance — a more efficient separation — and easier, faster cleaning has made De Laval Separators the favorite with farmers everywhere.

Ask your De Laval Dealer about the De Laval Junior Series Separators, too. There's a model for every dairyman's purpose . . . and to fit every purse.



THE DE LAVAL COMPANY LIMITED
PETERBOROUGH

VANCOUVER • WINNIPEG • MONTREAL
QUEBEC • MONCTON

De Laval BETTER SEPARATORS

Livestock Men Wind Up Year's Operations

The Quebec Society of Purebred Livestock Breeders is an organization of societies, and as such its annual meeting is attended, not by members at large but by official delegates from all the affiliated societies. Hence, its meetings are notable not so much for numbers of members attending as by the fact that everyone present represents his own society. This year's meeting took place in Montreal on March 16th.

The affiliated breed societies, and their 1947 membership, are as follows:

Quebec Sheep Breeders' Association	231
Canadian Cattle Breeders' Association	312
Canadian Horse Breeders' Association	67
Quebec Percheron Club	52
Provincial Brown-Swiss Breeders' Association	13
Quebec Branch, Holstein-Freisian Association	1330
Provincial Ayrshire Breeders' Club	989
Quebec Beef Cattle Association	176
Quebec Jersey Cattle Club	340
Quebec Belgian Horse Breeders' Association	30
Quebec Swine Breeders' Association	252 3,792

The affairs of livestock breeding in general for the 1947 season were touched on by President Lavallee in his opening address which mentioned the effects of the poor crop year and the adverse effect on livestock men of the difficulties caused by the packing house strikes. The new artificial insemination centre at St. Hyacinthe was discussed by Dr. Mercier, who explained that courses for inseminators were now in progress so that all would be in readiness when operations began early this summer. The state of fairs and exhibitions in Quebec were discussed and the opinion was expressed that many of our smaller fairs could easily be dispensed with, for all the good they do livestock men. Concentration of effort on the larger exhibitions, with perhaps some financial assistance to exhibitors coming from a distance would, in the long run, be more to the point.

The meeting took the usual action on the margarine question, asked that the Federal Department of Agriculture appoint more livestock inspectors so that the work could be brought up to date, and suggested that all fairs in the province follow the pattern of the Provincial Exhibition in their prize lists. The Federal Department of Agriculture was asked to take steps to have the Prices Board fix floors under prices of farm products, and the Quebec Department of Agriculture was asked to enact a regulation forcing anyone showing cattle, or selling cattle at auction, to produce evidence that his herd is free of all contagious disease.

Alex. Fournier was elected president for 1948, with Jos. Hebert and J. P. Beauchemin first and second vice-presidents respectively. Directors include A. Lavallee, Alp. Jargaille, Donat Giard, M. Joubert, N. G. Bennett, J. F. Desmarais, J. A. Ste. Marie and E. Sylvestre.

*For Results that Pay
feed the*
PIONEER Way!

316

PIONEER *Profit Proven* **FEEDS**

PURITY FLOUR MILLS LIMITED

Millers of PURITY FLOUR and PURITY OATS

Saint John, N.B., Montreal, Ottawa, Toronto, Winnipeg, Calgary, Vancouver

IDENTIFICATION

for

CATTLE, SHEEP, HOGS,

FOXES, POULTRY

(Live and Dressed)

Artificial Insemination Equipment

Write for free catalogue

KETCHUM MFG. CO. LTD.

Box 388, Dept. 10, Ottawa.

MAKING A NAME . . .

Co-operation of the Dairy Farmer with us in maintaining high standards of farm and dairy operation has won for Elmhurst Dairy Products their "Quality Guarded" name.

TOGETHER, we have made the Elmhurst reputation on which the success of our business rests. Together we can maintain it in the future to our mutual advantage.



QUALITY
GUARDED

ELMHURST
DAIRY LIMITED

DExter 8401

MONTREAL

Sow STEELE-BRIGGS



STEELE, BRIGGS SEED CO.
LIMITED

TORONTO • WINNIPEG
REGINA • EDMONTON

47
SOLD BY LEADING MERCHANTS



SEEDS
PLANTS
AND
GARDEN
SUPPLIES
NEW
CATALOGUE
FREE 42



W.H. PERRON & CO. LIMITED
SEEDSMEN & NURSEYMEN
935 ST. LAWRENCE BLVD. MONTREAL

Planning Pastures for the Milking Herd

As good pasture is the most economical and suitable feed for milk production the efficient dairy farmer takes full advantage of it. By planning ahead he insures that he has sufficient high quality pasture throughout the growing season. This pasture may be in the form of permanent pasture, pasture in the regular crop rotation or annual pasture.

Permanent pastures have been found of great value and those of good productive capacity are a distinct asset.

They are particularly valuable in the early season. Such areas can be improved by proper seeding, fertilizing and management.

Pasture in a crop rotation is desirable because it can be fitted easily into the usual cropping practices and it makes available later one or more pasture crops as aftermath. The dairy herds at the Central Experimental, says C. D. MacKenzie of the Animal Husbandry Division, are regularly pastured on this type with good success. The usual practice is to put the milking herd on the area which is in grass and legumes in the fourth season of a five year rotation. This rotation is composed of equal sized fields of hoed crop, grain, hay, pasture and grain.

Generally it is found advisable and even necessary due to the luxuriant growth in the early growing season, to pasture the herd on an area at the rate of two cows per acre and harvest the remainder of the field as hay or ensilage. This is easily done by fencing off a portion of the field by the use of an electric fence. Such a practice insures against pasture being wasted. Later the cows are allowed on this latter area when the aftermath has grown up. During the summer the aftermath from the first year hay field of the rotation is ready for grazing and a portion of this field along with the area first pastured usually carries the herd for the remainder of the season. The balance of this aftermath field can be used for a second crop of hay for winter feeding of calves.

Because of dry weather conditions in some areas it is good practice to supplement the usual pasture by seeding an annual crop adapted to particular soil and climatic conditions. Examples of such crops are oats alone, oats with either suden grass or sweet clover, millet, rape, fall rye and corn. Careful grazing of these crops is advisable.

In addition to planning for adequate pasture for the milking herd, consideration is given to such factors as location in relation to milking facilities, an adequate water supply, sufficient shade and proper fencing.

GREENMELK COMPANY LIMITED

PRODUCERS OF *Dehydrated*

CLOVERS
& GRASSES
ALFALFA
&
CEROGRAS

FOR LIVESTOCK AND
POULTRY FEEDS



STOP

costly BREEDING FAILURES with **REX** WHEAT GERM OIL

4 oz. \$1.25 — 20 oz. \$5.00
VIOLIN (CANADA) LIMITED
St. Thomas, Ontario



Why Floods and Dry Wells?

If you have floods every spring, or if wells have to be dug deeper and deeper because the water level is dropping, the watershed which supplies you is probably being cleared.

Watersheds are hill or mountain land from which water runs into lower land . . . Where a watershed is well covered with forests, brush, grass or other plant life, it holds back the rain and snow water so that this seeps into the ground as into storage, and thence slowly finds its way to the farms and communities below, feeding water systems, streams, wells, irrigation ditches and so on through the year. But when the watershed is cleared and grazed short or plowed the water all runs off in floods, and no supply is left for later.

Strippings

by Gordon W. Geddes

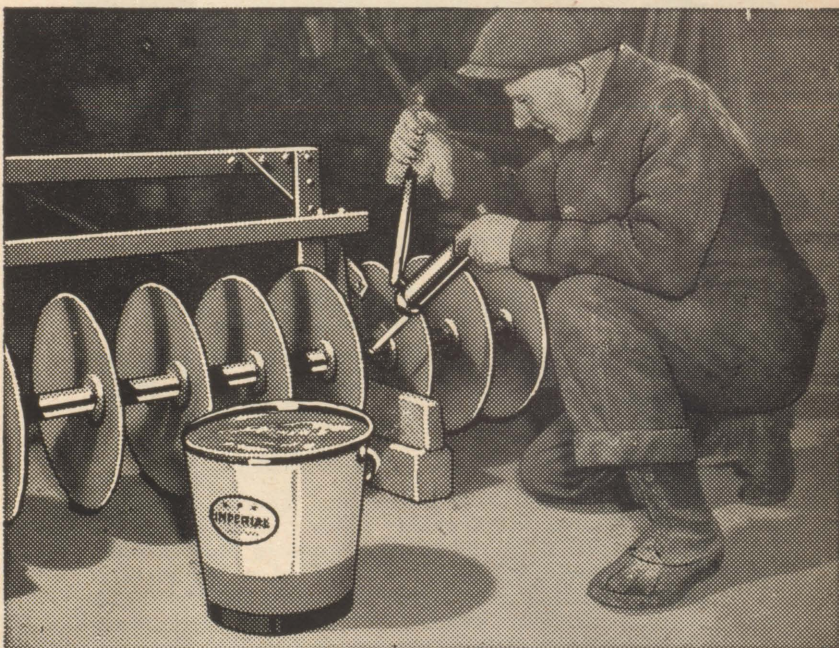
Professor MacFarlane's address to the Dairy Farmers of Canada could well be repeated to the Federation of Agriculture—and taken to heart by it. He seemed to feel that instead of trying to get the government to put a price on farm products that would meet the prices on the goods they buy, farmers should strive for competitive prices all the way along the line. The so-called free market in which farmers buy supplies is affected by so many monopolistic tendencies that it is not free at all. While farmers get the blame for asking for controls, they are really the last group, not the first, to ask for them. But two wrongs do not make a right so we should seek the abandonment of the original restrictions rather than the imposition of further controls to meet them. Every control applied leads to a demand for some other control until we find ourselves controlled right out of our freedom.

Much of it has already vanished as the Englishman who thought he was coming to Canada, the land of freedom, found out. It cost him nearly a hundred dollars to join a union before he could get a job. The unions have grown too top-heavy and have too much overhead expense. If one could join as cheaply as we joined the Ayers Cliff Farmers' Club, wages and prices would come down. That cost a dollar with a supper and entertainment thrown in. Of course, some of the entertainment wasn't so free as it looked even though it was good. It was films shown by the International Harvester Co. Naturally the cost of it had to be added to our farm machinery and is one of the reasons why I had to pay \$22 more in January for an engine to run the milker than I would have paid in October. But the films were good and as long as I had paid for them anyway. I was lucky to be able to see them.

All the time we keep running across new evidence in support of Ed. Faulkner's condemnation of the turn-plow. Just lately it was the man with the bull-nose scooter. He was a



Combination Offer at a **SPECIAL LOW PRICE**



Correct lubrication prolongs life of farm machines, increases speed and efficiency

Here's a grease gun for you that will save you money and speed up your work by making your farm machines operate more smoothly. It is an Alemite hand lever gun designed and manufactured by the originators of high pressure lubrication.



It was developed and used for army vehicles during the war and can handle all types of light or heavy bodied and fibrous lubricants. It is strong, sturdy and efficient. It is offered along with a 25 lb. pail of Marvelube Grease at a *special low price*.

Several other attractive grease equipment deals. See your Imperial Oil Agent.

IMPERIAL OIL LIMITED

Don't Buy Feed

THE WINNER!

IT MUST BE SOMETHING I ATE!

...BUY RESULTS

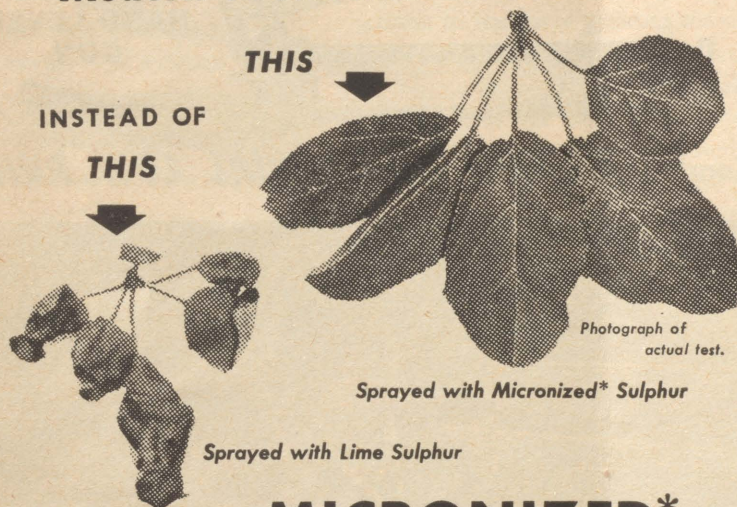
Ask for **"MIRACLE"** CALF MEAL

Ogilvie's MIRACLE CALF MEAL

M 46-8

Georgia farmer who agreed with Faulkner that the trash should stay on top of the soil to stop erosion and hold moisture. However, he did think the soil had to be loosened up to admit air and water so contrived his own tool to do the job and still leave the top on top. Result in an erosion district was bottom-land production on hillsides. He even renovated eroded land the same way. And now it is Jean de Brut who worked along similar lines for many years in France with splendid returns. Our first experience along that line was a trashy-looking stubble field harrowed and seeded to clover. It sure looked good last fall but we'll have to wait till haying to see what the crop is.

Modern Protection means



MICRONIZED* SULPHUR

for effective apple scab control

Field tests have proved the value of Mulsoid* Micronized* Wettable Sulphur in the control of apple scab... without injury to the foliage. Mulsoid Sulphur is micronized to an average particle size 15 times finer than ordinary 325 mesh. More sulphur surface is exposed, more fumes released, more spores killed... bringing an increased yield from your orchard.

ALSO

50% MICRONIZED* DDT WETTABLE POWDER... Cancel out Codling Moth as a serious orchard pest. 50% DDT Wettable Powder, in recent tests, has shown almost total destruction of the worms in the fruit.

Green Cross*

FIELD LEADER PRODUCTS FOR MODERN PEST CONTROL

*Reg'd trade-mark

Here's hoping that we get it in good shape so the quality will be good regardless of the quantity. We are now advised to feed more hay to the cows to save on the meal. To get them to eat a lot of it, it needs to be good hay and to get a lot of milk from feeding it, it needs to be good hay. If we have poor hay it contains less nutrients per pound and the cows eat less pounds of it so they suffer two ways. Now that it requires advertising again to move linseed oilmeal to market fast enough, we may get a chance to see if a 16% dairy ration is just as good under all circumstances as one with more protein.

Ever ask your cows to sow seed in the rough pasture for you? It has been done in the U.S. by mixing yellow birdsfoot trefoil in the meal in late summer or early fall. The seed comes out in the droppings, grows and spreads to improve the pasture. For me the flow would be that the cows should not be confined to poor pasture at that time of year so the seed might get misplaced. It may look as if something was misplaced too when we see cows grazing on yellow lupins. Certain varieties have been used for cover crops and soil builders but could not be used for feed. Now comes news of new strains good for feed as well.

They are a legume and do well on poorer soils.

Don't pin too much faith on milking before freshening to prevent milk-fever. Under a test in Wisconsin nearly a fifth of the cows had milk-fever just the same. This was about the same percentage as the rest of the herd which was not premilked.

At last, we have made a definite start on getting some of the hemlocks out of the sugar-bush. In the days when it was pastured, their seed grew and the hardwoods didn't. Now it isn't pastured, they are so thick there isn't room for the young maples to take root. Judging by their condition when cut, they were ripe for cutting anyway. Probably under the natural law of preservation of the species, their seed production would increase as the rate of growth slowed down. But I am afraid sugaring will slow down our rate of weeding them out before we get very far.

N. S. Plans to Improve Orchards

Under plans for the rehabilitation of the N.S. apple industry the Provincial Government will pay a bonus of \$4.00 per apple tree for the removal of trees of undesirable varieties in commercial orchards and which are not suitable for grafting. The sum will be paid in two installments — \$2.00 when trees are certified by an inspector as having been removed and \$2.00 when inspectors have certified that the premises have been cleaned of all stumps, wood and brush. The tree removal bonus will extend over a three-year period and will provide for the removal of 240,000 trees.

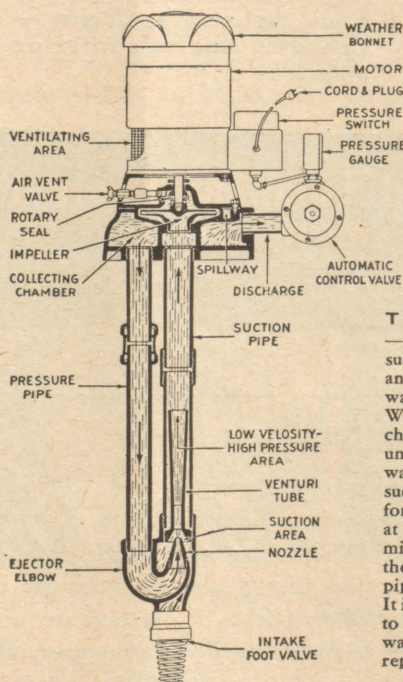
The cost of the rehabilitation of orchards through the medium of frame-working and cleft grafting will be borne jointly by the apple industry and the Provincial Government. The growers' share of the 1948 grafting programme will be paid for out of the 1948-49 apple pool.



FAIRBANKS-MORSE EJECTOR TYPE WATER SYSTEM

Can be installed off the well . . . Has no moving parts below ground

You're through forever with pumping and carrying water when you install a Fairbanks-Morse Ejector Type Water System. These compact, easy-to-install water systems give you all the water you need at the turn of a tap. As there are no moving parts below ground, they can be installed away from the well.



DEEP WELL AND SHALLOW WELL TYPES—Shallow Well Models (Lifts of 22' or less) are available in capacities of 500 to 1170 gallons per hour. Deep Well Units from 142 to 607 gallons per hour. All systems are simple, compact units, shipped fully assembled. They are self-priming and quiet running.

THE EJECTOR PRINCIPLE

The F-M Ejector Pump operates on the suction principle. It is equipped with an ejector assembly located below the water level of the well for maximum lift. Water passes through the pump collecting chamber to the ejector, creating a vacuum around the ejector nozzle. This enables water from the well to flow into the suction chamber of the ejector. Water forced through the ejector nozzle flows at a high speed into the venturi, where it mixes with water from the well, causing the water to be jetted through the suction pipe to within suction range of the pump. It is forced into the discharge pipe leading to the storage tank and a portion of the water remains in the collecting chamber repeating the cycle.

See your nearest FAIRBANKS-MORSE dealer today, or write:
THE CANADIAN FAIRBANKS-MORSE COMPANY LIMITED
MONTREAL — QUEBEC — OTTAWA



**Your Buildings
NEED
never grow old**

— neither need your implements and farm waggons show the effects of time and wear. In Murphy "Barn and Fence Paint" and Murphy "Waggon and Implement Paint" you have two top quality products that do a grand protection job, keeping your property "young" and new looking through the years.

Your dealer can supply you with these and with *Murphy Paints* (for the outside of your home) as well as *Narvo* — Canada's smartest interior finish.

The Murphy Paint Company Limited

HEAD SALES OFFICE 2740 ST. PATRICK STREET

MONTREAL • CANADA

FACTORIES - MONTREAL, TORONTO, WINDSOR, VANCOUVER - BRANCHES FROM COAST TO COAST

following beets made the difference between big yields and no yields at all. The sugar beet nematode builds up so fast in one growing season where fertile soil has grown a big crop of beets that the field is practically a deathbed for sugar beets the very next year if nothing is done about it.

Much More Lime Goes on Land

Almost four times as much lime was used to improve Canadian soil in 1947 as in 1938, the figures being 120,949 tons in 1938 and 452,523 in 1947.

The increase is particularly notable in the Maritime Provinces and Quebec where larger areas of land are inclined naturally to acidity to a degree which retards crop production. The increase in Quebec was from 28,368 tons in 1938 to 236,636 tons in 1947, and in the Maritime Provinces from 34,965 tons in 1938 to 198,353 tons in 1947.

The use of agricultural lime on the land has undoubtedly played a large part in increasing the production of food and other crops in these provinces. Much less is used in the other provinces because the soils are less acid naturally.

B. C. Herds Show Big Difference

A survey of 233 dairy farms in British Columbia disclosed that the cost of producing one pound of butter-fat varied from 12.87 cents to 127.47 cents. Obviously the milking efficiency of these herds varied considerably.

A profitable dairy herd cannot be maintained with poor producing cows, particularly with present high labour and feed costs. Nothing will reduce production costs and increase profit more than a rigid culling of the herd.

Experiments have shown that although there may be some superior dams in a mediocre or poor producing family line, the offspring of these dams will tend to revert to the average production of such family lines.

Soil Fumigation for Sugar Beets

Western sugar beet growers in the U.S. who have had to use crop rotations to combat the sugar beet nematode, now look forward to the possibility that soil fumigation may enable them to grow profitable sugar beet crops in succession rather than rotat-

ing with resistant but less profitable crops to starve out the pest.

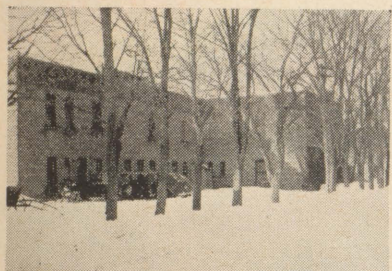
Tests carried out in Utah during the past season by scientists of the Department of Agriculture and the Amalgamated Sugar Company, showed that fumigation of the soil for beets



CO-OPERATION AND MARKETING

A page of interest to members of farmer's co-operatives

St. Jacques Co-op Handles Most of Quebec's Tobacco Crop



During the course of a single year, something like three million pounds of tobacco pass through the Joliette Tobacco Co-operative at St. Jacques de Montcalm. This co-op, organized in

1930, handles the crop for six hundred and seventy-five growers in the counties of Montcalm, Assomption, Joliette and Berthier. It grades, packs and sells the product according to market demands, and although it takes but little time to make that statement, the work involved keeps from 150 to 200 employees busy from December to May, and from 75 to 100 between June and November. Man-hours of work in 1947 reached the amazing total of 300,000 and the employees, mostly sons and daughters of district farmers, took home something like \$115,000 in wages.

The co-operative was organized during the depression, and its early history was unhappy. In the early days that necessary conviction of the value of co-operative enterprise was lacking among the members, and more than once the venture came close to folding up. The crisis was safely passed, however, and in the last few years membership has steadily increased and confidence in the co-op is now firm.

Growers deliver their crop during the winter, and the preparation that the tobacco undergoes at the co-op

consists of two distinct operations. One is the separation of the tobacco into the various commercial grades; the second is the preparation of the tobacco so as to make it suitable for cigar making, which involves the removal of the centre vein of each leaf.

Grading is done in the winter, between the middle of November and the middle of April, and the sequence of operations is as follows. As the farmer delivers his load of tobacco, each bale is weighed and given a number. A sample is taken from each bale, all the samples of the same lot are put together and examined by expert graders leaf by leaf. On the basis of this grading the farmer is paid for his crop.

Once the samples have been taken and each farmer's total delivery noted, the tobacco is bulked and goes to the main factory where it is weighed into 25 pound lots and passed on to the graders who separate it into the dozen or so grades demanded by the manufacturers. This involves examining every leaf separately and putting it into its proper pile, and one can imagine how many leaves there are in three million pounds of tobacco! This work is paid for at piece-work rates, and the 25 pound lot is the unit. After grading, the tobacco must be bunched according to length of leaves, to speed operations in the cigar factory. This means that every individual leaf must be measured: those between 18 and 22 inches in one pile, those 22 to 26 inches in another, etc. After all this is done, the tobacco is packed into wooden cases holding about 375 pounds of tobacco each, and the cases are piled on their sides in a heated warehouse where the tobacco ferments from 6 to 8 weeks at a tem-



A 25 pound bale is the basis of piecework in grading the leaf.



The tobacco is compressed into wooden cases holding 375 pounds each.



A general view of the sorting room where the tobacco is separated into the commercial grades.

perature of 95°, with relative humidity between 55% and 60%. After this fermentation period the tobacco is ready for shipping.

This is the form in which the greater part of the crop is sold, but some of it undergoes another stage of preparation, i.e., the removal of the central vein. To prepare the tobacco for this operation, the fermented tobacco is taken from the cases, moistened, and piled into great heaps containing about three tons of leaf. Here the temperature of the tobacco rises to 120° or 125°. At this point the pile is turned and cooled, moistened and allowed to heat again. After this is done two or three times, the vein is easily removed, after which the leaves are dried and re-packed for shipment.

Finance

The financing operations are worthy of special mention. The capital subscribed by the members (\$63,900 at the end of September, 1947) is not sufficient for operating. Therefore, each member lends to co-operative 10% of the total value of his crop each year, on which he is paid 4% interest. By the end of 1947 total loans amounted to \$189,568.94. These loans are repaid, once the operating capital reaches a certain minimum figure, in rotation, the oldest loan being repaid first. These loans provide a revolving fund which enables the co-operative to carry on its business and still retain control in the hands of the members themselves. Payment for the year's crop is made in two installments, the first about May, and the balance when all the crop has been sold and delivered. This final payment is usually made a year or even two after the crop has been delivered to the co-op.

The co-operative is run by an executive consisting of five directors: two from Montcalm county and one from each of the other three. Joseph Renaud of St. Roch l'Achigan is president and M. Turcotte is general manager. The field man is L. Archambault.

Quebec's Share Of The Tobacco Crop

The Province of Quebec has almost a monopoly on the production of cigar tobacco in Canada, growing about 85% of the total Canadian crop, with Ontario supplying the balance, and two co-operatives, this one at St. Jacques and another at St. Cesaire handle between them almost two-thirds of the whole crop.

Manager Turcotte points out that almost all Canadian tobacco is bought by Canadian factories, and almost all the cigars smoked in Canada are made in Montreal, though a very small proportion is exported. He sees little chance of any slackening in the demand for Quebec tobacco, for, with a production of about 220,000,000 cigars every year in Canada, something like 6,000,000 pounds of tobacco must be available. And the St. Jacques

co-operative, on its feet now after several years of hard times, is able to see that its farmer-members can put their production on the market in condition to command the best prices, with profit to themselves and with the assurance that, having satisfied their customers, they have a market for all the tobacco they can grow.



Expert graders check samples of every delivery, leaf by leaf, to determine how much the farmer will get for his crop.

MARKET COMMENTS

Wheat Agreement

An agreement has been signed by 36 countries, including 33 importing and 3 exporting countries, on floor prices for the next 5 years. For the 1948 crop the floor price will be \$1.50 per bushel. A 10 cent reduction in the floor prices was agreed on to occur annually until 1952 when the floor price will be \$1.10 per bushel. Two important wheat growing countries—Argentina and Russia—remain outside the agreement.

Prices of feed grain declined and prices of livestock advanced during the past month. Changes were not great, but fear has been voiced by packers that meat prices are beyond either the purchasing power or inclination of the consumer. Storage holdings above those of the previous year furnish foundation for such anxiety.

The number of hogs slaughtered in the first two months of 1948 was 45 per cent greater than in the first two months of 1947. Cattle numbers slaughtered were 11 per cent higher, calves 10 per cent up while sheep recorded a 21 per cent decline.

Production of both butter and cheese for the first two months of 1948 is lower than during the same period of the previous year. This has resulted from lower feeding of concentrates and is directly responsible for more abundant feed supplies at lower prices. Bran prices moved against the trend. This was due to lower volume of flour output.

TREND OF PRICES

	March 1947	February 1948	March 1948
LIVESTOCK:	\$	\$	\$
Steers, good, per cwt.....	14.10	15.55	15.60
Cows, good, per cwt.	11.02	11.55	11.65
Cows, common, per cwt....	9.03	9.23	9.05
Canners, and cutters, per cwt.	8.12	7.40	7.65
Veal, good and choice, per cwt.	17.05	22.65	21.90
Veal, common, per cwt....	15.60	20.40	20.35
Lambs, good and choice, per cwt.	15.75	16.00	16.00
Lambs, common, per cwt...	14.75	11.20	11.30
Bacon hogs, dressed B.1, per cwt.	21.90	28.10	28.58
ANIMAL PRODUCTS:			
Butter, per lb.	0.41	0.67	0.67
Cheese, per lb.	0.23	0.36	0.35
Eggs, grade A large, per doz.	0.36½	0.43	0.44
Chickens, live, 5 lb. plus, per lb.	0.29	0.31	0.30
Chickens, dressed, milk fed A, per lb.	0.35	0.39	0.40
FRUIT AND VEGETABLES:			
Apples, B.C. McIntosh, Extra Fancy, per box....		4.00	3.25
Potatoes, Quebec No. 1, per 75 lb. bag.....	1.15-1.25	2.10-2.15	2.00-2.10
FEED:			
Bran, per ton	29.00	48.00-51.25	50.75-52.75
Barley meal, per ton		64.75-68.00	60.00-65.00
Oat Chop, per ton.....		63.75-67.00	58.25-64.60
Oil meal, per ton		73.00	73.00

The Way To Success

A Co-operative has never been known to fail that followed these principles.

1.—MEMBERSHIP FEE LOW IN PRICE and within the reach of all. No prospective member is barred from participation because of his financial status, race or religion.

2.—LIMITATION OF THE MEMBER LOAN held by any one member. Capital may not be concentrated in the hands of a few members.

3.—ONE MAN, ONE VOTE regardless of the size of his member loan. This provision insures the equal rights and voting power of all members.

4.—SALES AT REGULAR PRICES rather than at reduced rates. This practice does not invite ruinous price cutting wars with competitors.

5.—SALES FOR CASH, thus eliminating inevitable losses connected with the granting of credit.

6.—PAYMENT OF A LOW RATE OF INTEREST on member loans and the DISTRIBUTION OF SAVINGS on the basis of the volume of patronage contributed by each member. Capital is hired. Patronage is rewarded.

7.—SET ASIDE A FUND EACH YEAR FOR EDUCATIONAL PURPOSES.

Federation To Meet In Maritimes

The semi-annual meeting of the Board of Directors of the Canadian Federation of Agriculture will be held this year at Kentville, Nova Scotia, in the heart of the Annapolis Valley.

The meeting is in accordance with the policy of the Federation established three years ago of holding semi-annual meetings alternately in the extreme east and west of the Dominion. Last fall the Board met at Kelowna, B.C., and in 1946 met at Charlottetown, P.E.I.

The meeting will comprise a three-day session, which will include one day of public session held in conjunction with the Nova Scotia Farmers' Association. The meeting will commence July 27 and conclude July 29, following which it is planned to spend a day in New Brunswick.

KILL WEEDS THE EASY WAY



Naugatuck
WEED-BANE
THE SAFEST, SUREST
2,4-D WEED KILLER

SAFE FOR CEREAL CROPS

Spray WEED-BANE in the post seedling stage, when grain is usually 6" — 10" high. Kills mustard, stinkweed, other annual and perennial weeds. Increases crop yields.



NO MORE OFF-TASTE MILK

By killing noxious weeds, WEED-BANE prevents poisoning of young stock, and off-taste milk from dairy cattle. Eliminates burdock, etc. from grazing lands — prevents dirty fleece on sheep.



WEED-FREE FENCE LINES

WEED-BANE assures effective weed control along fence lines, in cereal crops and grazing lands. Spraying equipment readily cleaned by several flushings with water.

WEED-BANE has been developed specifically for Canada's colder climate, hardier weed growth. It is the preferred triethanolamine formulation of 2,4-D, formerly known as Naugatuck 2,4-D Concentrate. Non-toxic, non-flammable, non-corrosive, WEED-BANE is harmless to grass, soil, animals, and humans. It kills weeds to their root tips, prevents re-growth and re-seeding. WEED-BANE is a liquid, soluble in water, easily measured, mixed, handled. Insist on the green liquid — WEED-BANE!

Ask Your Nearest Weed-Bane Dealer for Your Free Copy of the Folder "Why Grow Weeds?"



Naugatuck Chemicals

DIVISION OF DOMINION RUBBER COMPANY LIMITED



THE WOMEN'S INSTITUTES SECTION

*Devoted to the activities of the Quebec Institutes
and to matters of interest to them*

How Does Your Garden Grow?

by B. S. Lang

As spring sunshine warms the soil we garden-minded folks get the urge to rake over those nicely dried furrows and get the seeds planted, but be sure they are dry before starting work.

We know in order to have earlier vegetables we have to start weeks ahead by planting the seeds in window boxes, transplanting and later set out in hot bed or garden, depending on variety of plant.

It is quite easy to have a hot bed and if you have not already got one, here are some rules to follow. It is too late, of course, for this year but they may be kept for reference. It is well to plan on unit sizes which are the standard size, 6' x 3'. The frame can be built for one or more sash as needed, or if you so desire make one or more sash as needed, or if you so desire make one the size of a storm window sash. Locate it on the south side of buildings, or away from prevailing winds, in a well drained spot. A permanent hot bed is made by digging a pit about two feet deep and size to fit frame which is built above ground from boards one inch thick, 12 inches on one side, 8 inches on other, allowing a slope of 4 inches toward the south to shed water or snow. Reinforce corners and make sides tight to prevent drafts. A temporary hot bed may be made by putting the frame on top of the ground. This frame has to be higher, 3 feet at upper end with same 4 inch slope. Fill pit almost full of fresh horse manure, which supplies the heat through fermentation. The success of the hot bed depends on the proper functioning of this material. The horse manure must be fresh with little strawy material. Pile up in a warm place, enough to fill pit 18 inches deep. In a few days it will begin to heat and should be forked over. In doing this, work around the outside, starting a new pile with the cold portion of first pile, and finish with covering of the hot, or inside part. It should not be left undisturbed long enough to burn or "fire fang". After it has started even heating put it into bed, thoroughly tramped down in 3 layers, each 6 inches deep. On top put 4 or 5 inches good soil, firmed down. Cover with glass. After a few days the temperature will go down. Have a thermometer in the bed and when it registers 75 degrees it is time to plant the seeds or seedlings. Watch ventilation, as too high a temperature is disastrous and may result in plants rotting off at ground line. If temperature outside becomes low cover

with straw or old mats. Keep sufficient moisture for growth, watering around noon. Gradually harden off plants before time to plant in garden, by lifting sash gradually each day so plants will be sturdy enough to withstand the exposure of the weather.

Try to grow at least one new kind of vegetable each year. Asparagus is easily grown. If no space is available for permanent bed, why not plant a few roots in the perennial border? They make a decorative plant later in the season.

Location of Garden: When planning your garden try to have a permanent one near the house. If not large enough for all required, try having an early planting of some varieties. It is very convenient to have a garden near the house as many a few minutes can be found to be cultivating thereby eliminating those weeds before they get a hold. Remember "one year's seeding makes seven year's weeding."

Tools: Next have garden tools to suit the worker. We all know how discouraging it is to have to work with blunt or heavy tools, it takes the enjoyment out of having a garden.

Soil Fertility: Humus, or plant food, in the soil enables more good to be obtained from commercial fertilizers. One method of procuring humus is application of well rotted manure, and don't overlook the advantages of the compost heap. This is a good source of humus as well as an excellent place to dispose of grass clippings, weeds, etc. Remember your vegetables are only as good as the soil in which they are grown. Why not take a sample of garden soil and send to be analyzed when the field sample is sent. We want to get to know our soil. Do we value the soil at what it is — our family's health or ill-health, our future well-being or misery? For it is literally true that we are pretty much what we eat, and what we eat is as good or as bad as the soil in which it grows. A rich soil makes nutritious products and healthy people, a poor soil makes impoverished products and people subject to every kind of deficiency disease. So take care to maintain fertile land and so protect the health of our families.

Make your garden your project for the summer and you will have the satisfaction of enjoying fresh vegetables and fruits in season and by proper storage and canning, or quick freeze methods, reap its benefits the year round.

The Month With the W.I.

The highlight of the news this month is the splendid response made to the Canadian Appeal for Children. This is no new task for Institute members, as "Save the Children" has been a major project for the past few years, but that special drive met with whole-hearted support. Neither did Personal Parcels show any sign of faltering. In connection with this project the following item taken from a South London paper is of interest. "Mrs. E. Hammond, Labour Councillor, recently received four large parcels of tinned foods sent by the women

And this from one of our newer branches!

Argenteuil: This county mourns the loss of its president. (see special notice) How's this for an unique programme? Arundel's ten piece orchestra, composed of W.I. members each with a kitchen utensil, furnished the "music". Each member invited their husband, son, sweetheart or friend to enjoy the treat. Jerusalem-Bethany catered for a dance, raising a satisfactory sum for general funds. Lachute drew the attention of the members to the new X-ray machine now owned by the Health Unit. A talk on plant development was given by Mr. E. H. Peters. Lakefield members went by snow car to Lachute for their meeting. Pioneer voted \$10 to the Can. Appeal for Children and \$5 to the F.W.I.C. Emergency Fund.

Brome: Austin is co-operating with the local Farm Forum. Mrs. R. Goodwin, a member of the recently formed "Can. Organization of Women Voters" spoke at the meeting outlining its work and objectives. Abercorn gave a quilt to the Red Cross. Returns from a White Elephant sale were put in their "Sunshine Fund".

Bonaventure: Port Daniel send \$15 to the Can. Appeal for Children and \$5 to the Red Cross. Proceeds from a White Elephant sale and tea were forwarded to F.W.I.C. as the Leap Year contribution from this branch. And here's the first contest mentioned this month — guessing the number of peanuts in a bottle and the contents of a sealed package. Shigawake entertained Mrs. C. E. Dow, who gave a talk on her trip to Amsterdam. In addition to work mentioned at the first of this section this branch has prepared a layette to be sent overseas.

Compton: Bury, the history of this community was a feature of their programme. Canterbury sent four boxes this past month, one each to an Institute in England and Scotland and two "Personal". \$23 was donated Scotstown for their school milk fund. Cookshire with a publicity programme discussed "The Future of the W.I." East Clifton completed two quilts for overseas and heard two papers, "The Closed School" and "Just where I am". East Angus presented a life membership to one of their members and gave a dollar to start a bank account for a new baby. Scotstown, milk is being served to pupils in the first three grades and \$10 was voted to Can. Appeal for Children. A bridge of 500 marathon is being carried on to aid their library. Grandmother's Day was appropriately observed and vocal selections by

of Shigawake Women's Institute, Quebec, Canada, for distribution among deserving families in Westminster. Mrs. Hammond already has many such families in view and may probably keep some of the food for the old people of the "Darby and Joan" Club, which she helps to run. The food include apples, blueberries, beef, peas, beans, spaghetti, soups of various kinds and milk. The women of Shigawake canned this food themselves. Three other Personal Parcels were sent at the same time making seven in all from this branch."

a local artist were much enjoyed. South Newport gave a life membership to their oldest member, Mrs. Cora Austin, and 11 pounds of maple sugar was sent to veterans in hospitals. Bags were distributed for the "Sunshine Money".

Chat-Huntingdon: Aubrey-Riverfield held a rollcall which uncovered much latent talent, an original four line verse on the W.I. Current events by some of the convenors, a chapter from "Peck's Bad Boy" and an old-fashioned spelling bee made an entertaining programme. Franklin Centre arranged a card party in place of the regular meeting, the proceeds to be used for their "Parcels". Huntingdon held a benefit dance to aid their Boys Band and also voted \$10 to their local hospital and \$1 to the F.W.I.C. Emergency Fund. Contests on Foods and Nutrition, hints on conserving foods and a humorous reading, "Husbands grow from Trees", are also reported. Howick gave donations to the Can. Appeal for Children and the F.W.I.C. Emergency Fund. A talk on Canadian Industries and notes from the book, "The Northland of Ontario", featured the meeting. Hemmingford, Mr. C. E. Petch, as guest speaker, discussed "The Farmer in Changing Times" and for a lighter touch we find a talk on palmistry and fortune telling. Ormstown entertained Dr. P. Senecal who gave a talk on "Tuberculosis" illustrating it by the use of X-ray plates.

Gatineau: Kazabazua is resuming knitting for the Red Cross. A contest on the Handbook was a feature of the meeting. Rupert presented a Presto cooker to a member who has given many faithful years of service as president of the branch. Wakefield is also knitting for the Red Cross and is assisting the Jr. Red Cross in preparing an outfit for a small girl in England blinded in the blitz. Wright voted \$9 to the Q.W.I. Service Fund and sent a box of clothing to Save the Children. A membership has been taken out in the Can. Association of Consumers. Prizes were given for the best First Aid box packed by members and a paper read "What to do till the Doctor Comes".

Gaspe: Wakeham reports \$5 to the Q.W.I. Service Fund and a similar amount to Save the Children. An article was given on raising Angora rabbits. York also voted \$5 for Save the Children. "Education for Democracy" was the subject of a talk by the Ven. Archdeacon Reed.



Stanstead County Executive. From left to right are Mrs. H. B. Whitcomb, Treasurer; Mrs. G. E. LeBaron, President and Mrs. W. B. Sargeant, Secretary.

Jacques Cartier:

The organization of our 100th. branch, at Ste. Anne's, brings a new county into our list. We welcome the new group and wish them every success. Miss M. Jenkins of Macdonald College, gave a talk on Textiles at their first regular meeting.

Megantic: Inverness gave \$10 to Save the Children and made plans for a course in First Aid. An apron parade was held with a prize for the winner. This branch has a

group enrolled in the Blue Cross.

Missisquoi: Cowansville heard a timely talk on India by Mrs. Gibson, who had resided in that country. Naming an Indian city formed an appropriate rollcall. \$10 was voted the school hot lunch fund. Dunham is also assisting by serving hot lunches at the school. A Blue Cross group has been formed. Fordyce gave \$10 to Save the Children and held a successful card party.

Pontiac: Beech Grove discussed the Blue Cross and the Can. Appeal for Children. Bristol Busy Bees had the popular apron parade and enjoyed a couple of contests. Clarendon also reports a contests and short talks were given on various topics including "Nursing in the Home" Elmside mentions several topics discussed at their meeting, one on growing tomatoes of particular interest. A quilt was sold to aid the treasury. Fort Coulonge sent food to England through the Aylmer Canning Co. Household hints were given for the programme. Stark's Corners sent \$25 to the County W.I. fund for the Community Hospital. Sewing, fruit and vegetables have been sent to this hospital. Shawville is joining the Blue Cross and a St. John Ambulance course was arranged. Quyon reviewed the work done by their branch since its organization. Wyman made a quilt and distributed pamphlets on dressmaking.

Richmond: Cleveland heard an address by Mrs. A. E. Abercrombie on the Can. Association of Consumers. A bread contest is noted. Dennison's Mills reports two card parties and linen gifts presented a family, victims of a fire. A friendship quilt is being made for a departing member. And here is a report from the Junior branch

who planned an out-door sports party which proved most popular. Games and contests are enjoyed at their meetings. (Glad to hear from you, girls, come again) Gore discussed the Can. Association of Consumers and held a bread contest and sale. Richmond Hill held a merry "patching" contest and a remnant sale proved profitable. Shipton reports an active sunshine committee and arranged a successful tea. Spooner Pond took out a membership in the Can. Association of Consumers for their convenor of Home Economics. Here again, we find assistance given to fire victims.

Rouville: At Abbotsford a well-attended bridge netted a satisfactory sum for the W.I. The proposed by-laws were discussed at the meeting and approved.

Shefford: Granby Hill welcomed three new members. Generous donations for their work have been received from local factories and stores. South Roxton discussed the report of the last board meeting. The sum of \$8 was realized from a food sale.

Stanstead: Ayer's Cliff donated \$10 each to the Can. Appeal for Children and the "Blind Appeal". Many boxes of clothing have been sent to England. Beebe entertained their husbands at a supper at which pies, entered in a contest, were enjoyed. A N.F.B. showing was a feature of the programme that followed. Dixville also sent clothes overseas and is doing Red Cross work. Here, too, the husbands were entertained at a social evening and plans were made to finish their W.I. cook-books. Their famous "Carry-on Club", which did such wonderful work during the war on "Bundles for Britain" is being revived. Fitch Bay discussed the organization of a Home and School Association. North Hatley made their convenor of Home Economics a member of the Can. Association of Consumers. \$15 was voted the school radio fund or to be used for educational records. A box of clothing was sent a family in Manitoba who had lost their home by fire and plans made for a tea and food sale to assist the F.W.I.C. Emergency Fund. Stanstead North heard a talk on crafts by Mrs. A. Bulman, illustrated with samples of work, new and old. Tomifobia is making a quilt to be included in a box of clothing for Save the Children.

Vaudreuil: Cavagnal reports the W.I. loom is being kept busy by the members. \$40 was realized from a military whist and \$25 donated the Can. Appeal for Children. Vaudreuil-Dorion, Dr. M. McCready, of Macdonald College was guest of this branch and gave a talk entitled "Women in the Home Economy" Excellent results were obtained from a Telephone Bridge.

(Word has just been received that we now have 101 branches. A group of young matrons has just been formed in Port Daniel West, Bonaventure Co. and is to be known as the Duchess of Edinburgh, W.I.).

Q.W.I. Short Course

There is still time to register for the Q.W.I. Short Course to be held at Macdonald College, May 10-14. Handicrafts will be featured, along with foods, clothing, home decorating and various other phases of home economics and community leadership. Your committee and the College staff are giving their full cooperation toward making this course a success, but the final outcome is up to **YOU**. Write to the Q.W.I. Office for full details.

Handicrafts

(Extracts taken from a talk given by Miss Emily LeBaron on a recent Institute broadcast over Station CKTS, Sherbrooke. Miss LeBaron is a member of the North Hatley, W.I. and is an authority on this subject. It will be recalled that she wove the asbestos and flax place mats shown in Quebec's share of the F.W.I.C. exhibit last summer and afterwards included in the wedding gift sent the Princess Elizabeth from the Q.W.I.).

A handmade article is either justified by its inherent qualities and its capacity to express certain values, which are otherwise unobtainable, or it is hardly justified at all. These qualities of beauty and texture become lost in mass production, and it is for this reason that the creative urge in our children, our communities and our country should be encouraged and developed to the greater happiness of its people.

I should like to see some of the simpler crafts of the home revived and encouraged, not only because they would give greater beauty and comfort to our homes, but because we would become aware of the beauty, the colour and the texture of simple things around us.

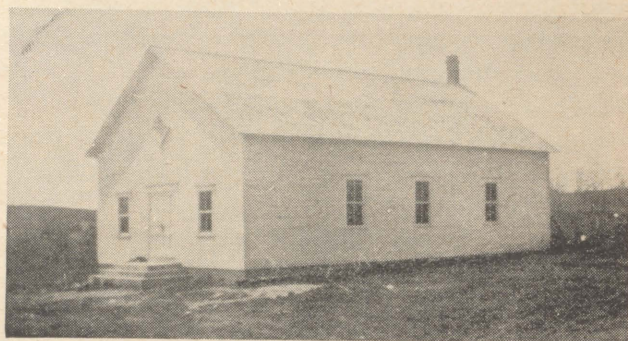
Articles of weaving, quilts, brooms, horn buttons, cheese boxes, maple sugar buckets, burl bowls, wooden spoons, simple tin and iron work, hooked rugs, were all made at home by our grandparents, also corn husk mats, baskets of split alders, butter molds and straw hats. Each was utilitarian, each was beautiful and each enhanced and made the house a home. It brought the family close around the hearth, it created individual effort and happiness, as well as fostering freedom of thought and an appreciation for those around them.

I should like to see a return of many of these simple crafts to our local Fairs and Exhibitions, and of art to the schools. One of the aims of our Women's Institute is to "Raise the standard of homemaking, maintain and encourage the national traditions of handicrafts".

It is this creative element we need so badly. Too often our Fair work is dull and uninteresting. Too often a piece of hand weaving is spoilt by the addition of unsuitable embroidery or a handsome quilt is machine-stitched around the binding. If an article is worth weaving by hand or a quilt worth quilting it is worthy of being finished by hand. Though an adult will never quite be able to capture the creative genius of a child,

much good design can be developed by becoming more aware of the beauty around them. Nature is full of surprises and patterns. It is there if we would but look.

I should also like to see a mobile museum that would bring to every child and adult the story of this country's beginning: the delightful ivory carving of the Eskimo, the useful and beautiful implements of both them and the Indians, the early prints that so well portray a different life from ours. I should like to see the treasures of Quebec, its old silver, its pottery, its provincial furniture, its paintings, its crafts, brought to every town for every child and every adult to see. In this way there will develop a deeper understanding of our country.



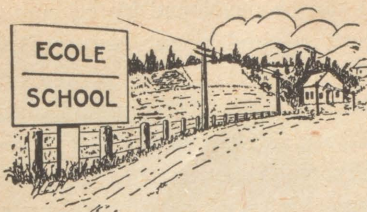
Brookbury W. I. Hall

The Brookbury Women's Institute was only one year old (organized in 1919) when the members decided they needed a hall. A piece of land was purchased and plans made to move an old house to make over for a place to meet, but interested husbands felt the women deserved a new building. Much of the lumber and labour was donated and through the co-operation of the men a roomy hall was completed. This has a large stage and is well-equipped for every purpose, for with true Institute spirit, the hall is used not only for their own activities but for all community happenings including school openings and entertainments.

Several large cash donations were received from interested friends and dances were held to cover the balance of the debt and cost of furnishings. Since the above picture was taken an addition of 14 feet has been added. This is just another example of the need for a community centre being met by the W.I.

LACHUTE MEMBER DIES

Members of the Quebec Women's Institutes will hear, with regret, of the death of Mrs. Robert McFaul, President Argenteuil Co. W.I., which occurred suddenly at her home in Lachute. Mrs. McFaul attended the last meeting of the Provincial Board apparently in her usual health, and her passing will be a very real loss, not only to the Institutes of her county, but to her fellow members on the Board.



LIVING AND LEARNING



Rural Short Courses Build Farm Movement

Sutton Courses related to needs and problems of its Community

Canada is a land of pioneers. Now that its frontiers have been pushed from Atlantic to Pacific, and from the U.S. border to the Arctic you might think that its pioneering days are over. But far from it: the frontier has just been changed from space to method; and people have found the new pioneering just as exciting, and much more satisfying, than the old.

Three times this winter, groups of rural people from various sections of Quebec have had a taste of this new pioneering. The first was at Bristol, where the Pontiac County Farm Forum Short Course was held. Students there grasped enthusiastically at the techniques used to build up the information, confidence and skills needed for leadership in community organizations. So infectious was their enthusiasm that a strong demand developed for a second short course, and one was held at Macdonald College. Several of the Pontiac students considered it worth while to take part in this one, too.

By that time it was obvious that a chain reaction was starting. When people went home from the Macdonald College course, requests began to come in to the Provincial office for short courses in the districts they represented. The heaviest demand was from the Sutton district, and now their course has been held—a course that was received just as enthusiastically as either of its predecessors. There's a demand for still more courses; but there's a limit to how far the funds for this purpose will stretch. Unfortunately, the funds don't expand with the demand.

What is it that makes these short courses popular? Short courses are nothing new. They've been held at many times and places, often with considerable success. But most of them have dealt with the technical aspects of farming—feeding dairy cattle and repairing machinery and growing grain and hay. The farm forum short courses are different. They're based on the assumption that once a community has become a live, working unit it will have no trouble in getting all the technical information that's needed—or in getting it put into practice.

The idea is that every community contains some potential leaders, who can do more to liven things up there than anyone coming in from outside. But many of these people aren't aware of what can be done with the assets they have, in the way of talents and facilities. So the short courses give them a chance to find out how other people are tackling similar jobs, discover answers to their own problems, and learn techniques that will help in building up good fellowship, enquiring minds and active programs.

Although they're built around farm forums, these short courses don't exclude non-farmers. There's a very good reason for this; in many small communities there's no line between farmer and non-farmer, and many non-farmers are active leaders in farm forum work. At Sutton, for instance, one of the moving spirits is Donald Hastings, who is employed at the local creamery, and another is Miss May Hextall, a helping teacher. These people, through their interest, their ability, their energy and



Students and visitors at the Sutton Short Course listened to the Farm Forum Broadcast on Monday night.



After the discussion they had a recreation hour.



Officers of the Short Course: Mrs. E. R. Bradley of Mansonville and Miss Mary Hextall of Sutton were secretary and registrar for the course. Harry Newman of Dunkin was chairman for the day while Floyd Griesbach, secretary of Farm Forums for Quebec was in charge.

their know-how, are natural leaders in farm forum work. And any program that didn't include them would lose a great deal of its effectiveness. Nobody recognizes this better than Gordon Shufelt, president of the Quebec Farm Forum Council or Mrs. E. R. Bradley, secretary of the Brome County Council of Farm Forums, who are bona fide farm people.

At Sutton, as at the other courses, the students elected their own officers, who delegated responsibility for certain duties to committees. Everyone had some responsibility, and an opportunity to learn through actually doing things. They built a program that suited their own community, and at the same time they built up confidence in their ability to organize.

Another important point is that the short course participants didn't isolate themselves from the rest of the community; instead, they did everything they could to reach out into it. At one evening session they met with farm forums from four counties. At another, they were hosts to the Sutton school children; and a third was Neighbour Night, with an open invitation to anyone who cared to attend—an invitation that was readily accepted, judging from a crowd of nearly two hundred.

During the discussion period the students learned that even a small group could find useful things to do—things that would gain wider support and make their efforts more effective. They heard how a library could be started at least expense; how a group could secure support for an active program through publicity that would let people know what it's doing; how programs could be planned and meetings conducted so that they would go somewhere; and how recreation could be organized to help draw people together.

Thus the whole idea of these short courses is to help build a movement that will continue to develop and strengthen into active, permanent organizations that

will assist people in solving their day-to-day problems and brighten their leisure moments. Such movements develop in the most attractive way when they draw no line between young and old, male and female, farmer and non-farmer, and make no distinction as to language, colour or creed.

A community that's really worth living in has a place for everyone—a place limited only by experience, ability, initiative and energy, all of which can be improved through active participation in local affairs. If they are helping communities to tap their own inner resources, the short courses are serving their purpose.



A group discusses the Farm Account Book with Dr. D. L. MacFarlane.

Egg Grading

The January summary of Quebec Farm Forum reports was forwarded to the Dominion Department of Agriculture. It contained two specific instances of criticism of egg-grading. The following report has been received:

"By this Department's Poultry Products Inspection Service I am informed that the limited volume of egg production in that area has made it difficult to get egg stations to operate. A number of them have been started and the majority of them have closed down because of lack of receivers, who might be country merchants, and shipped by them to egg stations at a distance. This does not work too well as a standard operation in the area referred to because a great many of the eggs are needed for use in the local towns. The only obvious answer is for the producers to grade their own eggs for sale. We are, in fact, encouraging this and find it quite feasible for any producer who has any quantity of eggs. This should take care of the local demand in those areas and any additional eggs can be handled through first receivers and shipped to egg stations.

"I note the report about the case of eggs being purchased from an egg station and which, when sent back, had a different grading from that for which it was purchased. There was an incident of this kind about ten years ago in that area and I suspect that the present report has reference to the same incident."

R. Marven, Publicity Editor

Schools Are the Rural Front Line

by Elizabeth Loosley

The Schoolroom is old. It has not been painted for a long time. But the red geraniums on the window sill and the bright drawings done by the children help. It is a constant battle to keep the place looking cheerful; but Miss Jones believes that colours are just as important as lessons! She chose the shelf of gay picture books the little children love; and built the green painted sand table for them to play in.

She has moments of being very happy. When a boy or girl makes her a special drawing for a present; or a parent stops in at the school to thank her for the extra help she is giving small, shy John. But sometimes she has hours of wondering whether she shouldn't try to get a school in the city next year, where she would have more to work with in both human and material resources. A school in the city, beyond the range of curious neighbourhood gossip and penny pinching board members.

Miss Jones is a country school teacher! After long years of being taken for granted, Miss Jones, and other teachers like her, are now being recognized as very important members of every rural community. For Miss Jones, if she is a good teacher, has an opportunity to create a position for herself, which is not open, in the same degree, to city teachers. For she can know her children and their parents intimately. She is an integral part of the community fabric.

One of these teachers put down in print, for the

benefit of other school teachers, the record of her contribution to her community. "**My Country School Diary**" by Julia Weber (Musson Book Company Ltd., 480 University Ave., Toronto. \$3.50) is an account of four years in a one room rural school in New Jersey; and as a description of human relationship and their development it stands very high indeed. Miss Weber took over the School after a long period of indifferent teachers. Yet the sum total of her accomplishment during her four years, working within the considerable limitations of her one-room school, is most impressive. Her success lies in her attitude towards her pupils and her own work.

She regards the school and its curriculum as a means of developing the personality of the child against the background of his home and community. She sees her own position as one of dignity and responsibility.

The Information Centre, Macdonald College, has received several requests recently from country teachers who are vitally interested in their jobs and view them as important contributions to community life. We are proud to offer them all the help we can. In addition to the book reviewed we can suggest "**Helping Teachers Understand Children**" published by the American Council on Education, Washington, D.C. (\$4.00) and "**Public Relations for Rural and Village Teachers**" published by the U.S. Bureau of Education (15¢). These books may be secured on loan; or ordered, through the Centre.

What Farm Forums Are Asking

Cane-borer in Raspberries

Hatley No. 2, Stanstead Co.:—"Has any way been found to combat cane borer in raspberries, other than to cut off affected canes and burn?"

Sec.—Mrs. Wallace Gemmel

ANS.

"In reply to your recent inquiry concerning the control of cane borer in raspberries, may I say that, to the present time, the only effective control is to inspect the plants once every week or ten days and cut off the wilting tips about two inches below the girdled area."

A. N. Nussey,

Lecturer in Pomology

Scabby Potatoes

Low Forest & Kingsley. Compton Co.:—"What would be the reason for having a crop of scabby potatoes grown on land broken up in a pasture the preceding year? Fertilizer was used in the soil. The first year potatoes were a very good crop." Sec.—Mrs. Wesley Lowry

ANS.

"Scab in potatoes is caused by a fungus which is in the soil. There is very little you can do for this trouble because it is in the soil. If you avoid applying lime at any time in the rotation and use certified seed, you may be able to produce a reasonably good crop."

H. R. Murray,

Chairman, Department of Horticulture

Where to Get Trees

Frost Village, Shefford Co.:—"Can you tell us if trees for reforestation can be obtained from the Quebec Provincial Government, or where they could be procured?"

ANS.

"Trees for reforestation can be obtained from the Quebec Provincial Government through their nursery at Boucherville, Quebec."

H. R. Murray

Chairman, Department of Horticulture



THE COLLEGE PAGE

Mac Had A Busy Month

The two weeks at the end of February and the beginning of March were about the busiest we have seen at Macdonald College for a long time. First was the visit of the Governor General on February 26th, which was reported in our last issue. The multitude of details that must be attended to in preparing for a visit from the representative of the King cannot be appreciated by anyone who has never had anything to do with such a function, and Prof. Rowles, Chairman of the War Memorial Committee that was in charge of the arrangements, was busy for some days afterward receiving congratulations on the way things had been handled. Everything went like clockwork. The right people were in the right place at the right time; the flags covering the memorial entrance didn't stick when the doorway was unveiled; the reception after the unveiling went off without a hitch. The Household Science students who were on duty at the practice house that week, and who had the honour of preparing and serving dinner to Their Excellencies, were apparently a little worried beforehand, but needlessly, for the dinner was a great success and our guests charmed everyone with their gracious and friendly manner.

The other big event was the College Royal. This was



The winning display was that of the School of Household Science. Here Mr. Gardiner presents the trophy, while Dean Brittain looks on with a smile. Dr. Barton and Miss Pepper are visible in the background.

a student effort, carried on with very little assistance from the staff, and was the first winter fair that has been attempted since the early days of the College, when the "Little Livestock Show" used to demonstrate something of the livestock work. The Royal was more than that for it highlighted the activities of every department of the College, including the School of Household Science and the Handicrafts Department, in addition to a really good livestock show.

Departmental activities were demonstrated in booths set up in the Women's Gymnasium. The booths were built by students in agricultural engineering, and students in each "option" set up their own display to show as graphically as possible something of the work done in animal husbandry, agronomy, chemistry, entomology, economics, home economics, etc. Especially in view of the fact that only one evening was available to do all this work, so that gym classes would not be interfered with, those responsible are to be congratulated on the excellent showing they made. The booths were judged on the morning of the Royal by Dr. G. H. Barton, Deputy Minister of Agriculture, Miss Laura Pepper of the Federal Department of Agriculture, and Mr. Leroux of the Publicity Division at Ottawa. The trophy, donated by the class of 1948 for annual competition, is a silver replica of the Macdonald College crest, mounted on an oak plaque, and it was won by the exhibit prepared by the Household Science students, after long deliberation by the judges. In second place came the exhibit prepared by the Animal Husbandry students. The Poultry booth with its display of live chicks, some dyed in College and University colours, and the Handicrafts workshop where weaving, metal working, pottery making, etc., were demonstrated, were particularly interesting to visitors, probably because they were "live" exhibits, but every booth was worth careful examination.

Across the tracks at the judging arena the livestock show attracted capacity crowds all day long to watch the students climax weeks of preparation by showing dairy cattle, sheep and hogs in competition for showmanship prizes. Prof. A. D. Runions of the O.A.C. judged this competition and awarded the grand championship to R. E. Ness of Howick, a second year Diploma Course student, for the way he showed his entry, a mature Ayrshire cow. Showing a Cheviot ewe lamb, D. A.

Lockhart, a third year student in the Animal Husbandry option, won the reserve award. A. V. Wan Ping, a native of British Guiana, and F. M. Conolly of Montreal placed first in the swine and Holstein classes respectively.

While the showmanship contests were on, the animals themselves were being placed. J. L. McKellar of Vaudreuil judged sheep and swine, W. A. Hodge, Holsteins and S. J. Chagnon, Ayrshires. Many favourable comments were heard about the quality of the stock on view, all from the College herds.

Mr. R. Raynaud, editor of *La Ferme*, put up prizes for poultry and egg judging in the Poultry Department and E. S. Merrit, a third year student in the Poultry Option, placed first, with A. B. Chaplin of Abbotsford and H. E. Moore of Montreal close at his heels.

We have mentioned at various times in the *Journal*, in reporting on various fairs, that some system of keeping spectators informed at all times of what was going on in the judging ring would be a great improvement. The manner in which Alan Hay, a second year Diploma Course student, acted as announcer might well be copied by some of our fair boards.

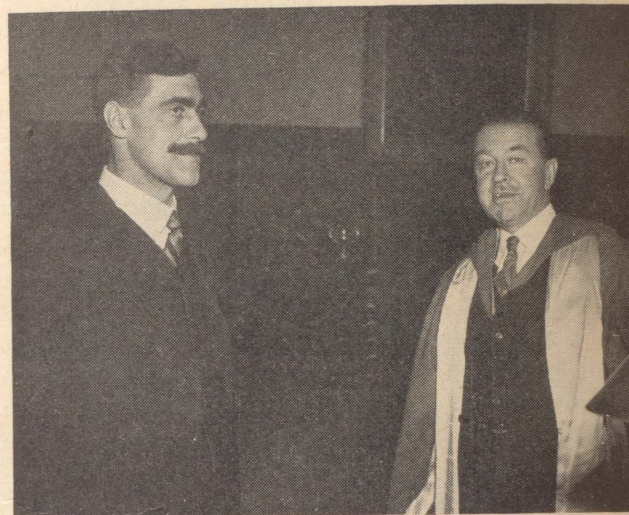
Another demonstration that brought forth much interest was the plant disease exhibit prepared in the Plant Pathology Department, into which a lot of work was put to good effect. The fashion show put on by the Household Science students, and their demonstrations of sandwich making, gave visitors a good insight into some of the work of this division of the College, and at both Practice Houses tea was served to all comers throughout the afternoon.

Val Swail of Hudson Heights was Chairman of the general committee in charge of the whole Royal, and



The Hon. J. G. Gardiner, Minister of Agriculture, declares the Macdonald College Royal officially open. Beside Mr. Gardiner is Dean W. H. Brittain, and next to the Dean is Val Swail, who was Chairman of the committee in charge of the fair.

John Hamilton of Lennoxville had the responsibility for the livestock show. The Royal was officially opened by the Hon. J. G. Gardiner, Minister of Agriculture, who paid high tribute to the initiative and imagination that had gone into the preparations. Everybody at the College agrees that this, the first Macdonald College Royal, has set a standard that students in later years will not find easy to surpass.



When Field Marshal Alexander was in Athens in 1944, the officer in command of his escort was Capt. John Mowles of the 10th Indian Division, Eighth Army. Mowles, now a student at Macdonald College, and the Governor General, re-fought the Middle East campaigns when His Excellency visited the College in February.

Farewell to Diploma Boys

On the third of April the largest class of Diploma students Mac has ever enrolled finished their examinations and scattered to their homes or to their summer jobs. To the graduates we extend our congratulations on the successful completion of their two years of work, with the best of wishes for their future success in their chosen field. We will welcome the first year students back at the end of October ready for another winter of work and fun at Macdonald.

The C.P.R. scheme, shelved during the war, is again in operation, and already thirteen English boys have been accepted for the 1948-49 session. Some of these boys are already here, working on farms and getting an introduction to the Canadian way of doing things; others will arrive during the summer. These boys have a knack of fitting in to College life — they enter eagerly into all the activities and many of them are leading lights on the sports field and in the other extracurricular activities of the College. Carefully selected before they are accepted, they are good students also, and their presence on the campus has brought nothing but good to Macdonald.

THE FARM ACCOUNT BOOK AND INCOME TAX GUIDE SAVES FARMERS TIME, TROUBLE AND MONEY

SAVES YOU TIME—You will find that a few minutes a week keeps your Farm Account Book up-to-date. The first 15 pages of your new Farm Account Book tell a straight story about what is required from farmers. Your problems are dealt with in question and answer form and an index refers you quickly to the section you want. The pages and columns for accounts are numbered to correspond with the items on the Income Tax Return form itself. You can make an accurate record of all farm dealings as you go along.

**If You Haven't Received
Your Copy, Get It Now —
FREE AT YOUR POST OFFICE**

SAVES MONEY BY SHOWING YOU HOW—Every farmer legally is entitled to deductions for a wide variety of expenses. Your Farm Account Book has 12 pages devoted to columns for these. You are reminded of items which otherwise you might forget. Depreciation, a big factor, is covered on 75 named articles in common farm use.

You are shown how to establish claims for a Basic Herd and make a Three-Year-Average of your returns. This latter gives you the

advantage of the lowest possible tax and it may be dated back to 1946. These are direct money-saving advantages entirely to your benefit.

THE THREE YEAR AVERAGE
You can't lose if you take advantage of this. Two things are necessary to average your income over the three year period ending December 31, 1948. First your 1947 return **MUST BE FILED ON TIME** — that is, by April 30, 1948. Then when you file your 1948 return in 1949 you may make application to average your income for 1946-1947-1948. This averaging of income continues yearly so that in each year you are taxed only on the average of each three year period.

REMEMBER — HALF CULTIVATED LAND YIELDS A POOR CROP — HALF KEPT ACCOUNTS GIVE POOR RESULTS TOO

Last year Canadian farmers—and there are nearly a million of them—produced over \$2,000,000,000 in farm produce of all kinds. No other single industry approaches agriculture in volume of production. And as in every other business—even the smallest—every farmer must file an account of his transactions with the Department of National Revenue to qualify for the many tax exemptions which are allowed.

DEPARTMENT OF NATIONAL REVENUE
(Taxation Division)

Keeping Canada's Pantries well-stocked with wholesome food



Chemicals protect crops—vital aid in processing and packaging

A well-filled lunch box—a bountiful home table—pantry and refrigerator well stocked with wholesome food—

That's a Canadian custom and millions of people are on the job to see that this custom prevails. Nature provides sun and soil, air and moisture. Man contributes labor. And among his tools none is more essential than chemicals—notably spraying and dusting materials.

Special care must be taken to protect growing crops from destructive pests, and growers rely heavily on Dow insecticides and fungicides. Dow Dormant Sprays, such as *DN-Dry Mix*, and other products such as "Mike" Sulfur, *DN-111*, to control red mite, DDT Formulations, App-L-Set, have their special jobs to do in orchards, groves, fields and gardens.

Much of this food must be protected from infestations while in storage or en route in cars or ships, as well as in processing and packaging. Great quantities of Methyl Bromide, Dow grain fumigant mixtures and other chemical materials are required for such purposes. All these Dow products are produced so that a hungry world can have more and better food.

48-215

DOW CHEMICAL OF CANADA, LIMITED
204 Richmond Street West - Toronto 1, Canada

